

GRAPHIC ARTS SUPPLIERS

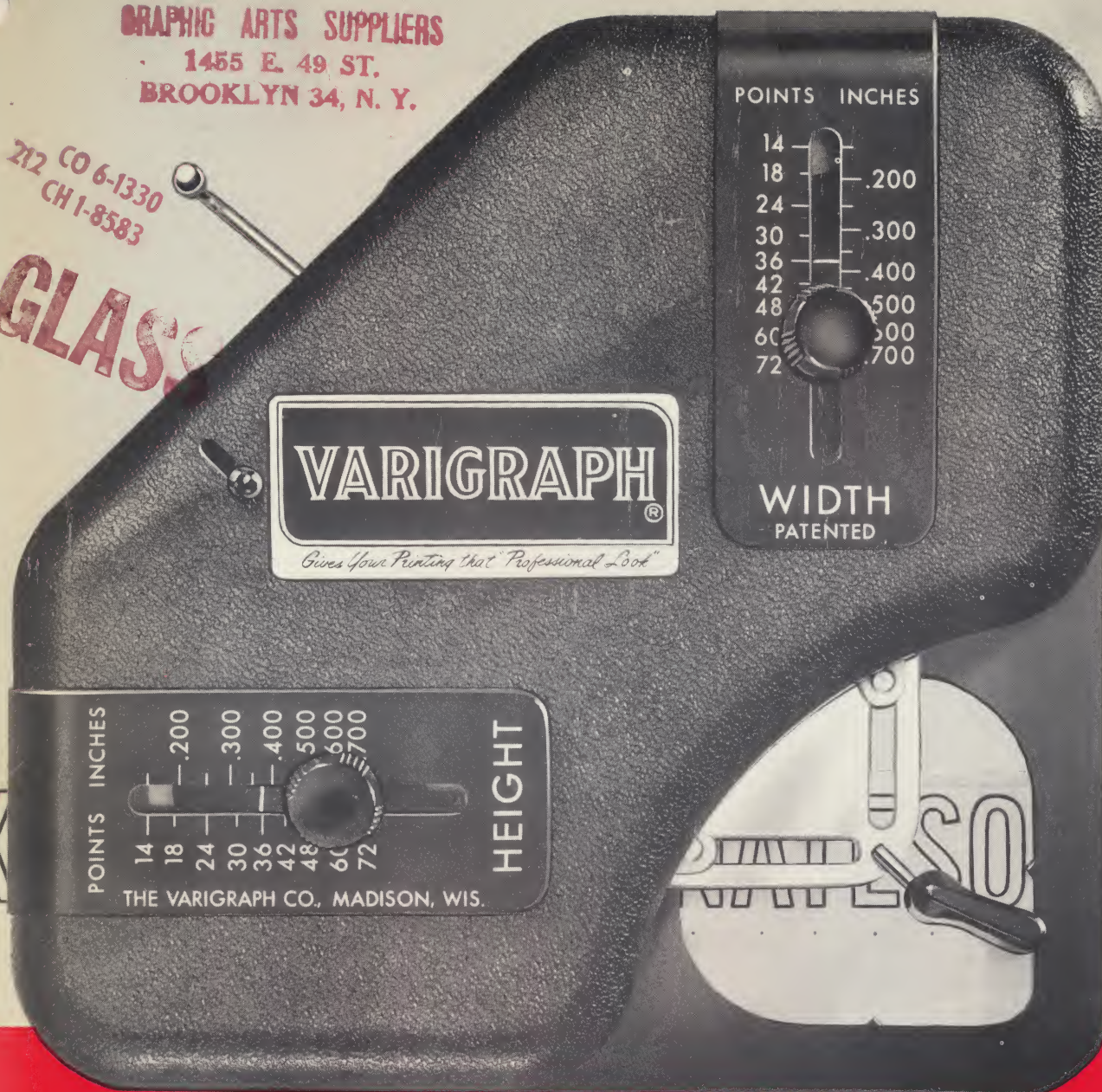
1455 E. 49 ST.
BROOKLYN 34, N. Y.

212 CO 6-1330
CH 1-8583

GLASS

PRICE
\$2.50

☆ 60s



TYPE

CATALOG

and PRODUCTION HANDBOOK

from: Madison, Wis. to: Madison Ave.

(With apologies to Michigan Boulevard and a few other BIG streets!)

This is an era of **BIGNESS**. Big budgets. Big taxes. Big bombs. Big headlines. Big wheels. Big talk. Big business. And big prices. Everyone is thinking **BIG!**

So perhaps you will welcome a little breather from all this bigness.

Take Madison, Wisconsin, for instance. (That's where the Varigraph is made.) It's not a big town. Only about 135,000. Mostly dairying. The University of Wisconsin. Oscar Mayer's wieners. And Ray-O-Vac batteries.

Our factory is not big. New, modern, and highly automated perhaps, but not big. Maybe the smallest in the industry. We want it that way. And it's our only factory. Which means our capital investment doesn't cut much of a figure in our costs.

And when we get all our employees together for a company picnic—well, the whole group isn't as big as a Republican rally in Moscow. So our payroll isn't much of a factor either.

We don't have service and repair depots in all the principal cities. Nor even in some of them. That's a big source of income we just don't know anything about. Because the Varigraph simply isn't built to break down.

We aren't a subsidiary or a division of anybody or anything. We are strictly an independent. **AND WE ARE THE ONLY INDEPENDENT OF THE "BIG THREE"**. We have just one product . . . one consuming interest—and that's the Varigraph. We have only one loyalty—and that's to you!

No one believes more strongly in advertising than we do. Yet our budget (as our agency will vouch) is the smallest in the industry. It may be that it just doesn't take much advertising to sell the Varigraph.

But in spite of all this (or perhaps because of it!) we are forced to admit that **THERE ARE MORE VARIGRAPHS SOLD THAN ANY OTHER MAKE OF HEADLINE MACHINE IN THE WORLD!**

And yes, we'll have to confess, too, that our sales for the past three years have been the **BIGGEST** in our history. Nor can we truthfully deny that our sales up to now are breaking our **BIGGEST** previous records.

If all of this proves anything, it has little to do with thinking big or with thinking little. Or even with where you think. It merely proves that people do think. And when people think—they buy more Varigraphs.

Sincerely,
Francis W. Chamberlin, Pres.
THE VARIGRAPH COMPANY

*Entire Contents Copyrighted 1963 by The Varigraph Company.
Reproduction in whole or part prohibited.*



INTRODUCTION

If we had any fears that our *TYPE CATALOG and Production Handbook* would end up looking (and being) like all other reference books on the subject of advertising, commercial art, and printing, our fears were indeed unfounded. It doesn't. And it isn't.

In certain respects we have departed somewhat from convention. For instance, we could have been expected to die-cut a tab on the cover. Like the coupon in an ad, the tab is a clever subterfuge. It says, in effect, "Here is something so valuable, you'll surely want to file it!"

But that's not at all what we wanted. The value of our book will lie solely in its daily application to your work. And a tab would have defeated our purpose. Instead, we have drilled a grommet hole in the top left corner. You can hang your copy to a hook on or near your desk. Or tie a string to it. Or fasten it with a lock and chain, if you think warranted.

In other respects we have returned to convention. For as the designers of women's clothes well know, something can be so old it's new. And we are only following in the tradition of the type catalogs of a generation or two ago, when we revive the custom of showing the complete alphabet or font.

To have done otherwise, would have deceived no one. If we had endlessly repeated stuff about poor old Ben or the quick brown fox, it would have been merely a shabby device to keep some poor artist from using our catalog as a source book for his handlettering.

Quite to the contrary, we are genuinely happy to help him. And if we can help him enough, soon he will have the money to buy a VARIGRAPH. (Although actually, he doesn't have to wait until then to enjoy the immense advantages of a VARIGRAPH.)

There are other sound reasons why showing the entire font is a particularly useful feature. First, it enables anyone to compute with practical accuracy how much room a headline will take. And if you are lucky enough to have a VARIGRAPH, by simply turning a couple of knobs, you can enlarge or reduce, condense or extend to fit the space exactly.

Showing the entire font has still another purpose. It enables you to identify even a single sample of type.

There are those who will be amazed that we have been able to pack so much information into a volume no thicker than ours. To a large extent, this is due to an innovation made possible by the VARIGRAPH itself.

You will note that we have shown all type faces in only the one size—24 point, whereas other type catalogs must show the different sizes in which a face is available. But the VARIGRAPH has no such limitations. A single matrix or font will reproduce that face in hundreds of different sizes. It would have been quite impractical to have illustrated the thousands upon thousands of combinations represented by the matrices listed herein.

In regard to point size, as most of you already know, the same face in the same point size will usually vary a little in actual size from one foundry or source to another. So it is inevitable that our 24 point may occasionally be fractionally larger or smaller than the "hot metal" sample with which it is being compared.

In our article on type, which follows, and in the many other articles in this book, and also in the *Glossary of Terms*, some authorities may differ with us on some points (as well as differing with each other!). But we do not believe they will find any errors of fact.

What may at first appear to be an error will, we are sure, prove out to be an intentional over-simplification. We have designed this book to be of greatest value to all those engaged in the fields of advertising, commercial art, and printing, irrespective of their experience or lack thereof. And we do not feel that anything will be the less understandable to the expert, merely because it has been made easily understandable to him "who knows not, and knows he knows not."

All Headlines in this Catalog Set on the VARIGRAPH

All from one alphabet!

HUNDREDS OF SIZES

NON-PHOTOGRAPHIC
NON-PHOTOG
NON-PHO
NON-PI
NON-

Other headline machines would require five different master alphabets to set the five sizes of type shown at left, but the VARIGRAPH does it with just one! And that same VARIGRAPH alphabet will also give you hundreds of in-between sizes . . . as well as hundreds of variations like those shown on this page . . . without using a single stat! And it's all done with one or two knobs on your VARIGRAPH!

OUTLINES & REVERSES

NON-PHOTOGRAPHIC
NON-PHOTOGRAPHIC
NON-PHOTOGRAPHIC
NON-PHOTOGRAPHIC
NON-PHOTOGRAPHIC

Outlines and reverses . . . screen effects . . . and two-color headlines are just samples of what you can do with Keyline letters. Used by themselves, they are a welcome change. Only VARIGRAPH gives you Keyline letters . . . in hundreds of sizes and shapes from one alphabet.

CAMERA MODIFICATION EFFECTS

NON-PH
NON-PH
NON-PH
NON-PH

Note that in the examples above, the width of each letter remains the same. Only the adjustment for height was changed. In the examples across the page, the height is constant and it is the width that has been altered. Same matrix or alphabet was used for all!

Yes! The stretched-out letters at left, and the squeezed-in letters at right, were all actually produced with the same alphabet! Of course, it could have been done with camera modification, but that is too expensive for most jobs, and the VARIGRAPH does the same thing — at no cost. Just the turn of a knob. You can use this feature to modify ads . . . or simply to save the cost of buying extra alphabets.

NON-PH
NON-PH
NON-PH
NON-PH
NON-PH

STEPS & SHADOWS

NON-PH
NON-PH
NON-PH
NON-PH
NON-PH

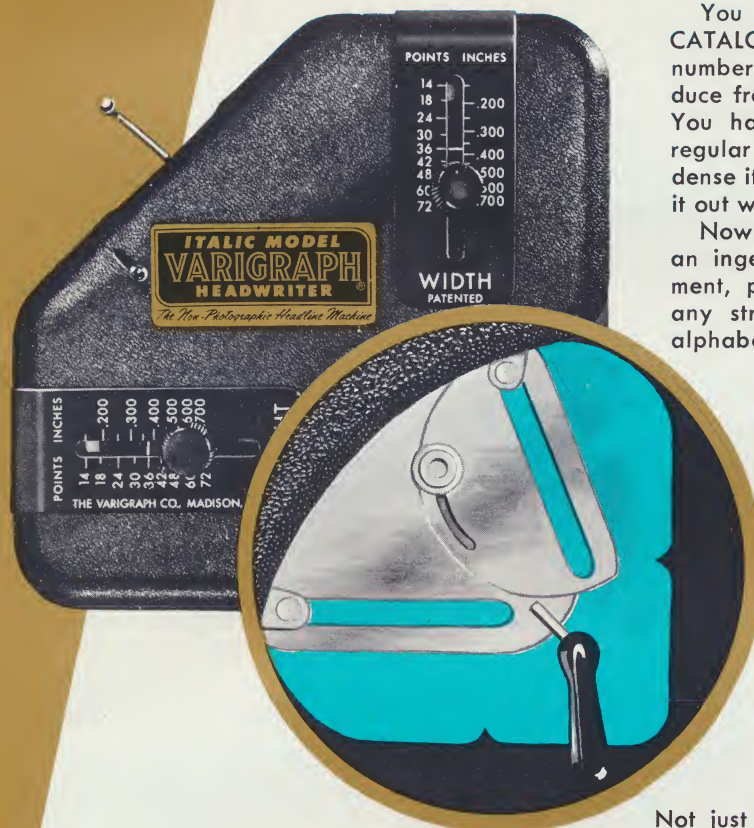
Type running up and/or down . . . plus many other difficult and expensive-looking arrangements that enable you to make more dramatic, more effective use of space are all in the day's work with the new VARIGRAPH Composing Table shown on page 6. Now it's easier than ever to set headlines right on your art work, mechanicals, even on paper plates. No other headline machine can do this!

CIRCLES & CURVES

NON-PH
NON-PH
NON-PH
NON-PH
NON-PH

And no other headline machine can set curves and circles. Until now, you had to paste-up each letter separately or resort to costly camera modification. Today, it's as easy as setting straight headlines — thanks to VARIGRAPH's new Curve Attachment described on page 8.

NOW - Varigraph Gives
You not Hundreds...but
THOUSANDS
OF DIFFERENT TYPE SIZES
AND SHAPES AND SLANTS
ALL FROM ONE ALPHABET



You have seen on page 2 of the TYPE CATALOG a few of the nearly infinite number of sizes and shapes you can produce from just one VARIGRAPH alphabet. You have seen how you can take any regular VARIGRAPH type face and condense it to fit into tight quarters, or stretch it out w-i-d-e to take up more room.

Now the **Italic Model** VARIGRAPH with an ingeniously clever and simple adjustment, produces back-slant or italic from any straight - up - and - down or roman alphabet.

Inset in circle shows close-up of italicizing adjustment. Set the italicizer to any angle you want up to 22°—and you open the door to thousands of new sizes and shapes and slants to fit every space requirement, every communication need—all from a single alphabet! Think what this means!

Just one single VARIGRAPH alphabet gives you that type face in every size you are ever likely to need for your headlines . . . gives you that face in practically unlimited condensed or extended versions . . . and now gives it to you in any back-slant or italic.

Not just hundreds upon hundreds of variations, but now THOUSANDS of different sizes and shapes and slants—all from one single VARIGRAPH alphabet!

Only one other headline machine comes even close to doing what the VARIGRAPH does—and it costs over 11 times as much! All other headline machines—the one you now have or may contemplate buying—give you only one size, one shape, one slant per alphabet . . . need a different alphabet every time you want to change size or shape or slant. It would take over \$100,000.00 of their alphabets to do what the VARIGRAPH does with one alphabet!

If you use more than one size of type . . . if you know and appreciate good typography, you owe it to yourself to put a VARIGRAPH in your plant or department as soon as possible!

At the left you see the same headlines—from the very same master alphabet—shown on page 2; only here, the letters have also been italicized or back-slanted with the all-new **Italic Model** VARIGRAPH.

**ITALIC MODEL
VARIGRAPH
HEADWRITER®**

STOP ON A DIME!

The Vertical Has no Limit

HORSEPOWER WITH HORSE SENSE

**REPUBLIC BUENA
NEW VISTA
GEARCORP ESTATES**

Private Sale

FASTEST

**BIOHIDE
BIOHIDE**

MODERN Interiors

We Bend over Backwards to Please!

LONGPULL



PRESENTING the all-new

Italic Model **VARIGRAPH**

Not only does the new italic Model VARIGRAPH make communication more articulate by enlarging upon word configuration, but it brings countless tight-fisted economies and other very practical, realistic advantages to the user. It makes the one-size, one-shape, one-slant systems you are resigned to, now utterly obsolete.

No longer is it necessary for you to buy italic alphabets, either. Because now you can make an italic out of any alphabet you have. You can even italicize type faces for which no italic has ever before been cut—Copperplate Demibold, for instance, or Ex Libris. Or imagine Old English in the never-but-never italic form! Supposing you already have an italic alphabet, but you want the roman or non-italic version. That's easy—just backslant the italic! Brush, which normally slants forward, has been converted to a straight-up-and-down letter in the example above.

Back-slants and italics can be used to impart movement . . . or to arrest motion. Ordinary italics can be

further italicized for greater emphasis. By using back-slants, verticals and italics, almost endless perspectives can be achieved.

And, as shown above, all of these can be imaginatively combined with modifications in height and width to produce printed words that almost talk! The Italic Model VARIGRAPH will breathe new meaning into your headlines, logotypes, trade marks, slogans.

The Italic Model VARIGRAPH is priced at only \$179.50.

You can substitute the Italic Model for the Standard Model in any of the VARIGRAPH Outfits shown in the 1963 TYPE CATALOG:

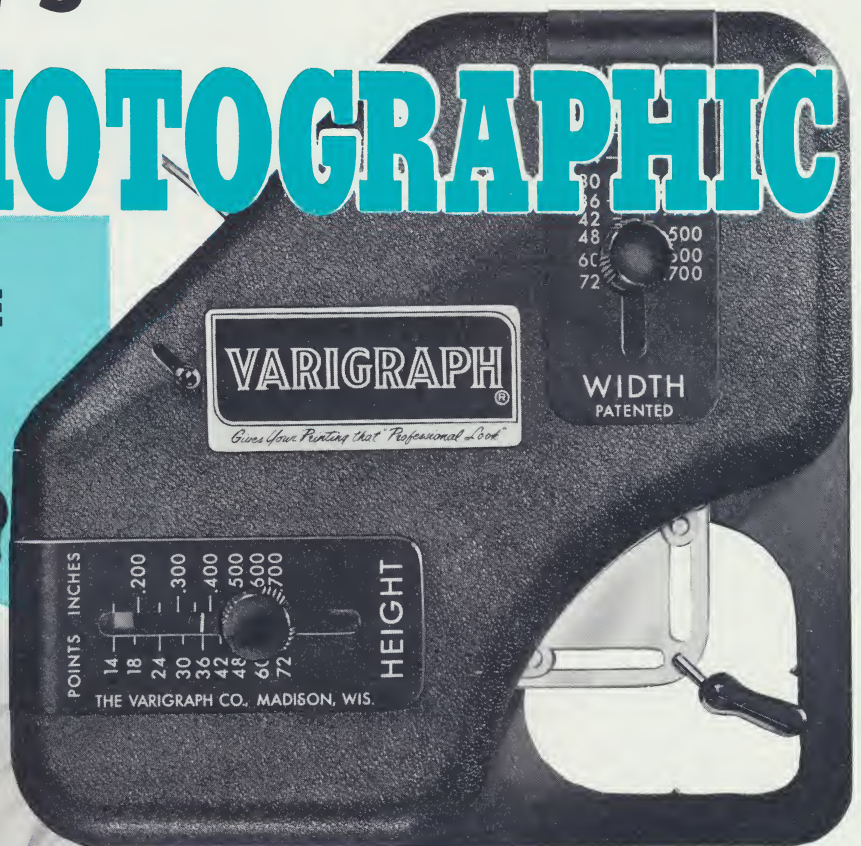
Office Outfit, page 3, with Italic Model	\$259.95
Production Outfit, page 7, with Italic Model	\$379.95

(NOTE: Your present VARIGRAPH can be converted to the Italic Model at nominal cost; write for full details.)

VARIGRAPH Inc., Madison 1, Wisconsin, U. S. A.

Every Headline Saves You Money because it's **NON - PHOTOGRAPHIC**

**NOW - a COMPLETE
OUTFIT for UNDER
\$230!**



Of course everyone would prefer the Complete VARIGRAPH Production Outfit (see page 7) but perhaps you don't use enough headlines to justify it. For those whose requirements or budgets are small, we offer the Complete VARIGRAPH Office Outfit listed below. This is a complete outfit with everything you need to start setting professional quality headlines within minutes after unpacking it. There's nothing more to buy. Most important of all, you get the same incomparable, world-famed VARIGRAPH Headwriter described on this and the following pages. All — for only \$229.95!

INCLUDES THE FOLLOWING ITEMS

Office Model VARIGRAPH Headwriter \$149.50	
18" x 24" Drawing Board \$8.95	24" T-Square \$8.95
Matrix 25UL \$16.00	Matrix 34U \$17.00
Matrix 82U \$17.00	Matrix 965U \$17.00
Pens 00, 1, 2, 3 \$4.90	T-Lock \$2.95
Fill-in Pen \$.49	Socketholder \$1.75
Ink Cartridge \$.35	No. 0 Production Pen \$4.05
Strathmore Paper \$1.00	Direct Plate Ink \$1.95
Instruction Manual	Type Catalog
Total Value if Purchased Separately \$251.84	

There are three ways to get professional headlines. You can pull repro proofs, or have them pulled, from metal type. The ink smears at your touch. You are limited to type size . . . have to get stats. This is the old-fashioned way.

Or you can set headlines photographically — AFTER training and experience, IF your negatives are clean, IF your light-sensitive paper is good, IF your chemicals are fresh. Of course you'll have to use the manufacturer's paper and chemicals. Your headlines are limited to the size of your negatives. And you still need stats.

Then there's the VARIGRAPH way . . . the NON-PHOTOGRAPHIC . . . 100% mechanical way that anyone can use without training or experience. No negatives. No photographic papers. No chemicals. Just an ingeniously simple mechanism that reproduces type perfectly . . . sharply . . . cleanly . . . from a nearly indestructible engraved matrix . . . puts that type on inexpensive drawing paper . . . in any of hundreds of sizes and shapes from that one matrix.

The VARIGRAPH Headwriter, illustrated above, is not only the most flexible . . . the most versatile . . . the most useful headline machine on the market, today it is also one of the most functionally beautiful. Its black crackle finish, its etched chrome dials (to control type HEIGHT and WIDTH) are but external evidence of inner precision.

If you take pride in your equipment, here is the headline machine that will delight your eye. If you take pride in your work, here is the one headline machine that will exceed your every critical requirement.

You may save yourself thousands of dollars this year alone by studying the details and pictures on the pages which follow.

The price of the VARIGRAPH Headwriter, less mats, is only \$149.50.

Set Headlines at once • No Training Period

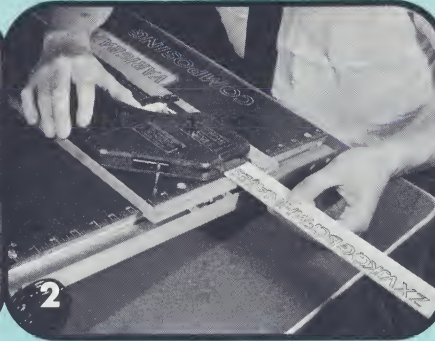
Prices and Specifications Subject to Change without Notice.

HOW DOES THE VARIGRAPH

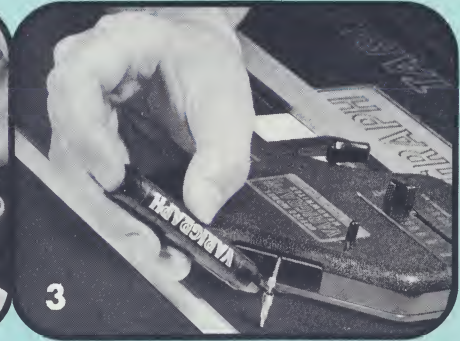
These Sequence Shots Show You the



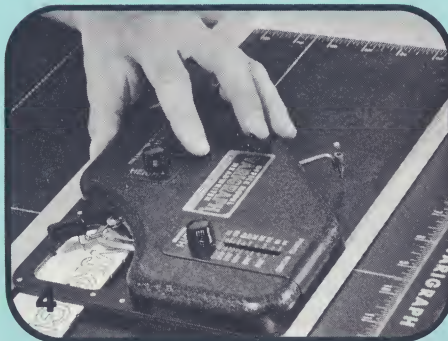
Non-photographic—that's just one big way the VARIGRAPH saves you time, trouble, and money. Savings start with these master alphabets deep-cut in light metal matrices. No negatives to become stained, scratched, and torn . . .



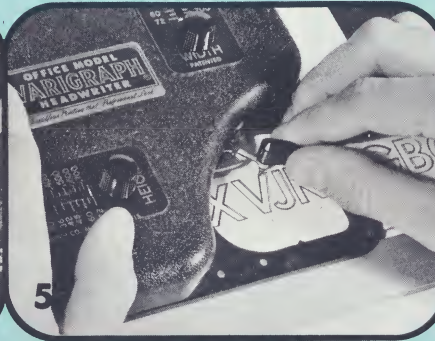
No rolls of type . . . no hide and seek. Everything's out in the open with VARIGRAPH. Choose the one you want from all the popular type faces, and slide it in like I'm doing here. This mat is Futura Demibold . . .



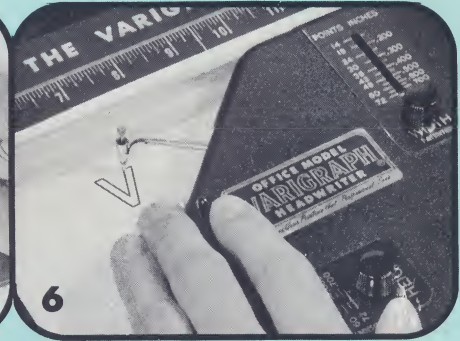
No messy chemicals to fool with. No costly photographic papers to ruin. Just a sheet of drawing paper . . . and a fraction of a cent's worth of ink from the convenient cartridge —and you're all set to go . . .



This little lever is your "on-and-off" switch. It raises and lowers the pen. I use my left middle finger to raise it, like this, when I'm going from one groove or letter to another. And my index finger to lower it. Now . . .



Let's slide the mat to the letter "V" and start setting a line. First, we'll take the swivel handle between right thumb and forefinger and place the stylus in the groove. Next, lower the pen and start tracing the groove . . .



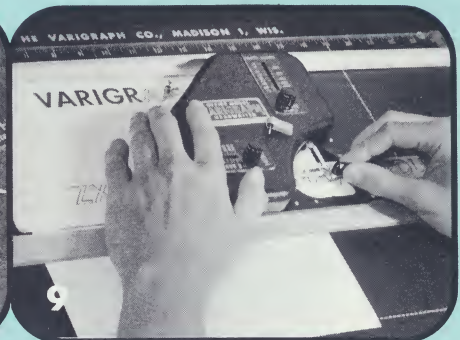
Almost like magic, the VARIGRAPH pen follows every move of your stylus . . . quickly outlines the letter you're tracing. You can fill the letter in solid by hand before you can say, "Office Model VARIGRAPH Headwriter", or . . .



You can do like I'm doing—let the fill-in mat do the work for you. In that case, you just change from the tracing stylus to the blunted fill-in stylus, trace the letter again, and look what happens . . .



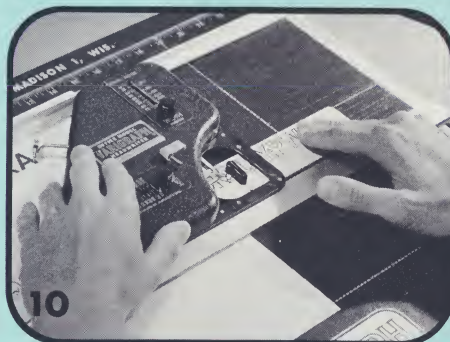
Here, again, the pen is following every move of your stylus, fills the letter solid in no time. Note position of my index finger. As soon as I've finished the "V", I'll raise the pen with my middle finger . . .



The VARIGRAPH uses visual spacing. If it looks right, it is right! It's that simple and easy. By referring to my VARIGRAPH Type Catalog, I know just exactly what size to make the letters so they'll fit the space I want . . .

WORK ?

whole Time-saving, Money-saving Story!



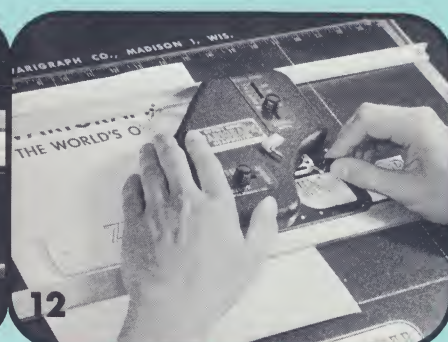
10

All the letters on the VARIGRAPH matrices are arranged in the order of their frequency of use. The most commonly used letters are toward the center of the mat, so you rarely have to move up to the end like I'm doing here . . .



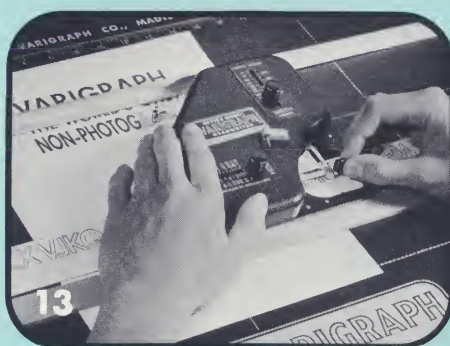
11

But I haven't shown you the most terrific feature of all! By merely adjusting one or both of these knobs, I can reduce the letters all the way down to one-fifth height, or width, or size—all from the one matrix . . .



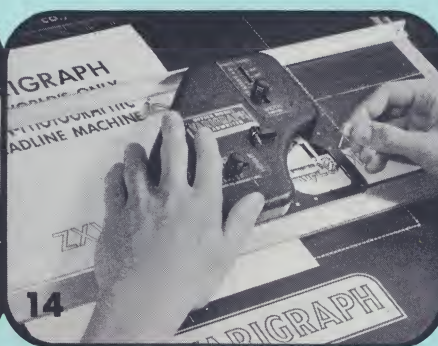
12

Here, I've dropped down to 42 pt. Since you don't work blindfolded with the VARIGRAPH, there's no excuse for making a mistake. But if I should, I've only ruined a few cents' worth of paper and ink . . .



13

Perhaps you're beginning to see how mighty important this non-photographic feature will be to you. That's why I wanted to emphasize this word, so I've condensed it to crowd it in big and bold . . .



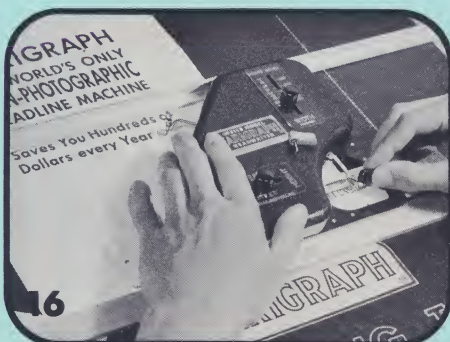
14

I had finished filling the "E" in solid when the camera caught me changing from the fill-in stylus. I've already shown you how just this one mat sets great big letters, as well as small letters, and thin letters, and now . . .



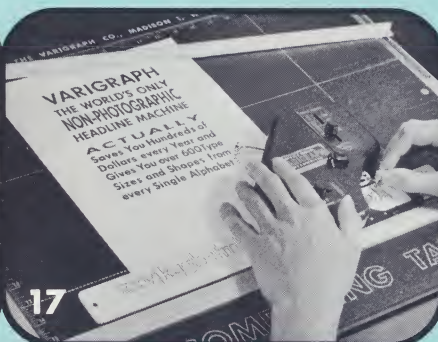
15

Letters as wide as those in the first line, yet no higher than those in the second. Yes, it's the same matrix; all I did was adjust the height knob on the left as you can see. This is a short word, so I'll letterspace it out . . .



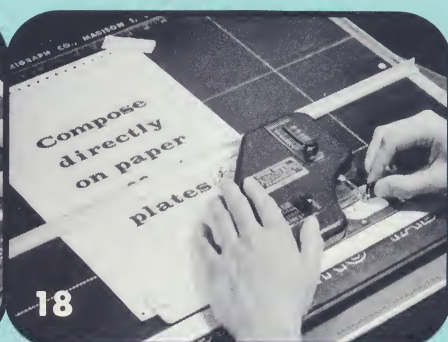
16

I'm setting these lines in 36 pt., and using upper and lower case matrices. I could have dropped all the way down to 14 pt., with this mat, but that would have been too small for you to see in these pictures . . .



17

I did this the hard way. It's much faster if you set the lines just like repro proofs, then cut them apart and paste them in position. There's one other thing I forgot to show you . . .



18

Another terrific feature of the VARIGRAPH —you can set type directly on any stock, even on paper offset plates like I'm doing here. No other headline machine will do that. On the next page I'll show you all about the wonderful new VARIGRAPH Composing Table . . .

Sensational New COMPOSING TABLE

Sure! I'm enthusiastic about VARIGRAPH's new Composing Table—and so will you be when you use it! Because you can work all over your copy . . . leave words or lines unfinished while you set others . . . and go back to them later in perfect register. Heads and everything line-up without any fussing around. I even use the Composing Table for ruling horizontal and vertical lines with my VARIGRAPH.

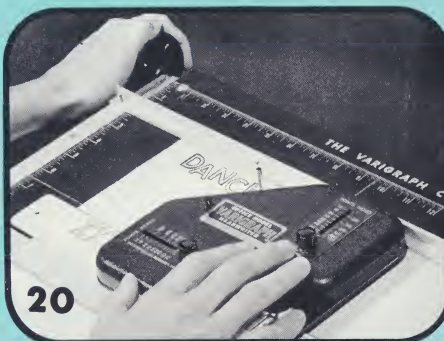
The VARIGRAPH Composing Table affords a comfortably large 24" x 20" working area—big enough to accommodate all paper plates . . . most layouts and art work . . . even full width newspaper display heads. Top is durable black composition, reinforced and calibrated in sixteenths. Sleeve bearings are provided in three positions for the Curve Attachment (page 8).



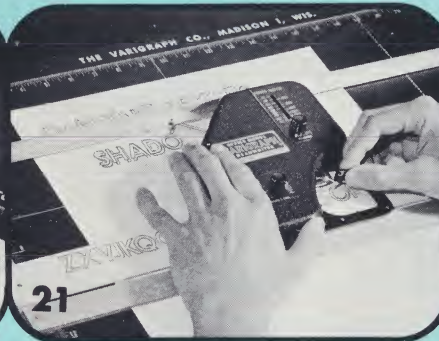
The Composing Table opens a vast new world of sales-stimulating display limited only by your creative ability. Steps up . . . or down . . . dancing letters . . . shadow effects . . . and a host of others are now yours with a turn of this vernier . . .

The sensational new VARIGRAPH Composing Table performs the important functions of a line-up table. It provides a perfectly horizontal track along which the VARIGRAPH is operated. The man-sized vernier knob (top left corner) quickly and easily moves the track vertically (up or down) by hairline or headline distances, guaranteeing exact register at all times. All metal parts are of stainless steel or light alloy for maximum strength with minimum weight. Folding legs hold table at ideal working angle. Composing Table only \$89.50.

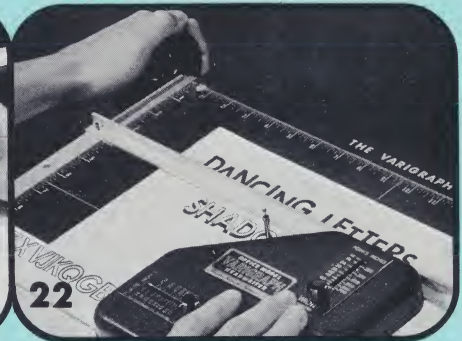
Also available with 1/4" transparent plastic top where the advantages of a light table are desirable Only \$109.50
15 watt Fluorescent Fixture for above \$ 9.50
24" x 36" Composing Table \$114.50
Also available with 1/4" transparent plastic top \$144.50



One letter down . . . next letter up . . . you make them dance to your tune. It's easy now, but it used to be hard with the VARIGRAPH—and it's still impossible with any other headline machine! See why I'm so enthusiastic? Now, let's try some shadow effects . . .



Up for the letter . . . down for the shadow! Every headline you set can be another eye-catcher! And that's not all—wavy lines . . . inside and outside curves . . . even complete circles . . . things you thought could only be done with camera modification . . .



All these . . . are now as easy as straight lines with VARIGRAPH's new Curve Attachment. It's optional equipment with the Composing Table and is described on page 8. Don't miss it! It is another reason why the VARIGRAPH with the new Composing Table is the hottest thing in the "cold type" field!

The COMPLETE VARIGRAPH Production Outfit with Composing Table

With the sensational new VARIGRAPH Composing Table, plus the new Curve Attachment, plus the new Production Pen, the VARIGRAPH becomes indisputably the most versatile and productive "cold type" headline machine on today's market.

See on Page 2 a few of the hundreds of different type sizes and shapes—many of them costly camera modification effects—the VARIGRAPH gives you from one single alphabet. This feature alone will save you many hundreds of dollars in stats or alphabets.

Stop to consider the tremendous importance to you, and to your pocketbook, of the term: NON-PHOTOGRAPHIC. It means no costly light-sensitive papers. It means no messy chemicals to buy. No expensive supplies to be wasted.

Follow the operator on pages 4 and 5 as he shows you right before your eyes how simple and easy everything is when it's NON-PHOTOGRAPHIC. It means you can use untrained, unskilled help.

No other headline machine can set curves and circles—but now turn to page 8 and observe how neatly the new VARIGRAPH Curve Attachment solves this problem.

Most important of all, NON-PHOTOGRAPHIC means you can set VARIGRAPH headlines right on your art work, on overlays, photographs, mechanicals, even directly on paper plates. No other headline machine can do that, either!

And finally, think how much the VARIGRAPH will save in your shop. It gives you an extra composing room . . . a low-cost source of supply that is always available after hours, on week ends and holidays.

Yet the total price for the Complete VARIGRAPH Production Outfit—with a large selection of the most popular display faces—is only a fraction what you would have to pay for the next nearest comparable headline machine—only \$349.95!

INCLUDES THE FOLLOWING ITEMS

Varigraph Headwriter \$149.50	
Composing Table \$89.50	
Matrix 965FU (14-72) \$24.50	Matrix 965L (14-72) \$15.00
Matrix 28U (14-72) \$17.00	Matrix 28L (14-72) \$15.00
Matrix 64U (14-72) \$17.00	Matrix 64L (14-72) \$15.00
Matrix 85U (14-72) \$17.00	Matrix 25UL (14-72) \$16.00
No. 0 Production Pen \$4.05	
Above mats may be exchanged for your choice of equivalent value.	
No. 00, 2 and 5 Capillary Pens \$3.50	
Cartridge Varigraph Ink \$.35	Bottle Di-Rect Plate Ink \$1.95
Fill-In Pen \$.49	
Pen Socket Holder \$1.75	Layout Pencil Attachment \$4.50
Fill-in Stylus \$2.50	Pkg. Strathmore Paper \$1.00
Instruction Manual	
Type Catalog	
Total value of above if purchased separately \$395.59	

Prices and Specifications Subject to Change without Notice.

and new Varigraph PRODUCTION PEN

The new VARIGRAPH Production Pen lets you set headlines for days—even weeks—without re-filling. Won't dry out even if you have to leave it for awhile. No need to clean it when you're finished, either—just put the cap on, stand the pen up with the reservoir down, and it's all ready for the next job.

Available in the seven line sizes shown, the VARIGRAPH Production Pen is standard equipment with the Complete VARIGRAPH Production Outfit.

NOTE: Only the VARIGRAPH Production Pen, and no other reservoir pen, will fit your VARIGRAPH.

Production Pen \$4.05
Complete Set (7 sizes) \$25.50
Replacement Points \$2.50 each



CURVE ATTACHMENT



Unbelievably simple in construction and use, VARIGRAPH's amazing new Curve Attachment sets type in curves and circles as easy as straight composition . . . makes the VARIGRAPH the only headline machine that can do it. Made of tough 20 mil Vinyl, the Curve Attachment consists of a turntable of approximately 17" diameter with a pivotal center shaft. Shaft fits three flush sleeve bearings on the VARIGRAPH Composing Table to provide radii from 0" to 12 1/2". Curve Attachment is optional equipment with the Composing Table \$9.50.

MODEL FOR COMPLETE OFFICE OUTFIT

Works on an entirely different principle from the above. Consists of heavy gauge transparent plastic jig which guides the VARIGRAPH in curves and circles with radii from 3/4" to 11 3/4". Very accurate. Easily attached to drafting board.

Curve Attachment for Complete Office Outfit CA85 \$8.50



Direct Image Paper Plates

Colitho

The COLITHO No. 70 Paper Plate has been developed especially to present a superb surface on which to set headlines directly with the VARIGRAPH for offset reproduction. It accepts DI-RECT Plate Ink perfectly to yield a sharp, brilliant master. Art work and typing (manual or electric) are easily applied directly, as are also xerographic images. It is ideal for medium runs and is available in the following styles and sizes with marginal guides printed in blue:

10 x 15 with Straight Edge or Pin Bar; 10 x 15 1/2 Oval

Specify which

25 Plates \$3.00

50 Plates \$5.00

100 Plates \$9.35

PAPER PLATE INK

Especially formulated for use with VARIGRAPH Capillary pens when setting headlines and display material directly on paper and metal offset plates. It gives dense coverage and provides an extremely durable and uniform ink-receptive and water-repellent image. Free-flowing.

2 oz. DK19 \$1.95

COLITHO HI-SPEED ETCH SOLUTION

Made expressly for offset duplicators with automatic etching devices, COLITHO Hi-Speed Etch Solution enables the image to accept ink at once, as well as reducing emulsification with its attendant problems. Non-toxic and odorless, it is ideal for use with all presensitized plates and as a fountain etch for A. B. Dick, Rotaprint, Simflo and similar offset machines.

COLITHO Hi-Speed Etch Quart \$2.00

FILL-IN STYLUS



Use when filling in with fill-in mats. No. F25.....\$2.50

MATRIX INFORMATION

MEANING OF MAT NUMBERS

The alphabet or type face is shown by the first figures. The letters used in Mat Numbers describe the mat and its contents:

- C—Condensed
- F—Fill-in Mat
- L—Lower Case
- N—Has Numerals
- S—Italic
- U—Upper Case or Caps

8

The figures in parenthesis show the minimum and maximum type sizes the mat is capable of setting.

The Mat Numbers used in this Catalog tell you everything about a matrix, including whether it is a Regular Mat or a Fill-in Mat, whether it contains upper or lower case or both, and what are the largest and smallest sizes you can set with it. The entire Mat Number should always be used in ordering, to get the mat you want.

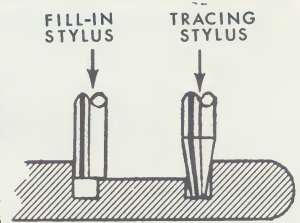
Example: 91FU(14-72)

The first figures identify the type face, which is Futura Bold in this example. If, as here, the first letter is an "F", it is a Fill-in Mat. See column at left for meaning of other letters. Numerals appear on all upper case fonts. Punctuation marks are duplicated on upper and lower case. The figures in parenthesis, above, tell you this mat will set type as small as 14 pt., or as large as 72 pt.—or any size in between.



REGULAR

Regular Mats carry only the grooves for outlining a letter (see cross section at left). Fill-in Mats have the entire letter recessed, in addition to the grooves (as shown in cross section at right). Movement of Fill-in Stylus is confined by the letter but not by the grooves.



FILL-IN

See Pages 43, 44, 45 and 46 for other Supplies

Varigraph Pens

0000	—————	\$2.75	Professionally recognized as the highest quality pens made, VARIGRAPH Capillary pens are available in a complete range of line weights or sizes, from No. 0000 to No. 8, as shown at left. The cleaning pins fit the pen bores with perfect clearance to promote smooth, uninterrupted flow of ink. All parts are specially treated to resist corrosion.
000	—————	2.10	
00	—————	1.60	
0	—————	1.60	
1	—————	1.40	
2	—————	.95	
3	—————	.95	Professional Set, 11 pens (No. 000 through No. 8)
4	—————	.95	LL11 \$13.50
5	—————	.95	Popular Set, 5 pens (No. 00, 0, 1, 2, 3)
6	—————	.95	LL5 \$6.50
7	—————	.95	
8	—————	.95	

SEPARATE CLEANING PINS

No. 0000-C \$1.10 ea. No. 000-C \$.90 ea. No. 00-C \$.90 ea.
No. 0-C \$.85 ea. No. 1-C \$.80 ea.

Varigraph INK

A truly superior, non-actinic black ink, filtered to guarantee perfect flow and possessed of ideal surface tension characteristics for use with VARIGRAPH Capillary pens. It dries slowly in the pen, rapidly on the paper and covers well. Ink-dropper cartridge makes for easy, mussproof filling.

Cartridge NK30 \$.35

SEE PAGES 45 AND 46 FOR
OTHER COLORS, PEN HOLD-
ERS, ETC.



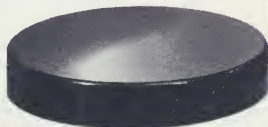
PEN TANK

A convenient receptacle for your pens to prevent loss or damage. Automatic tray holds 20 pens in cleaning fluid.—pops up when you want one! Tank is glass; tray is plastic with stainless steel spring. Complete with cleaning fluid. Pens not included.

Pen Tank PT59 \$5.95

CLEANING FLUID

12 ozs. RF29 \$2.95
Quart RF59 \$5.95



Type Talk

Overwhelmed by the bewildering array of type faces encountered today, the reader may have sought refuge among a half dozen or so familiar faces with which he is on a first name basis. These might consist of several "Romans" such as *Bodoni*, *Caslon* and *Garamond*, and a couple of "sans serifs" like *Vogue* and *Futura*. More than probably he has adopted these for no other reason than that they came with his printer or compositor.

Sometimes this works out quite well, but far more can be accomplished by a better understanding and wider use of the many type faces available.

THE TWO FUNCTIONS OF TYPE

The two primary divisions of type are not based on whether they are "sans serif" or "Roman" . . . on whether they are "old style" or "modern". They are based solely and exclusively on what the type does.

When you want to hail a friend across the street, you raise your voice, you call to him, perhaps you shout, even whistle. Maybe you wave your arms. In any event, you don't whisper. A conversational tone of voice would be drowned out by the competing sounds of traffic.

Later of course, you will talk normally. But you can't do this until you have first caught his attention. And brought him to your side of the street.

Type is the human voice recorded by phonetics. There is talking type; and there is shouting type.

Text type and display.

The text types are invariably drawn from among the so-called "Romans" and "sans serifs". Otherwise, their most distinguishing feature is that they all look very much alike. Although character counts will vary considerably, they are never noticeably condensed or extended. They are rarely light face or bold face, but somewhere in between. It would not be far wrong to say that the modern text types have been designed by opticians rather than by typographers.

Sometimes display types are merely text types which have raised their voices a few point sizes . . . and may have dropped from a tenor to a bass. But more often the display types are of the arm-waving, whistling variety. Admittedly, these latter get better attention.

The same attention-getting qualities which make a display type effective, would only be annoying and distracting in a text type. Imagine, if you will, the difficulty of reading your favorite newspaper or magazine set, say, in *Brush* (page 28) !

While the text types are sure to be either "Roman" or "sans serif", the display types are not inhibited by such conventions. Certainly some broad scheme for cataloging all type faces — at least in our own minds — would be both helpful and welcome.

THE MONOLINES

The first letters fashioned by man were traced in moist earth with a pointed stick. Since it was neither easy nor necessary to control the width of the lines, they were all made the same thickness. If they varied, it was by accident and not design. And because this was a slow, laborious way to form a letter, the number of lines per letter was kept to the barest minimum essential to distinguish one from another. There were no curlicues, no embellishments.

These are the Monolines.

Simple, functional faces with lines the same weight throughout. Although generally regarded as being "modern" and the last word in type design today, the *Monolines* have in fact come down to us with very few changes. *Vogue*, *Futura*, *Twentieth Century*, *Tempo*, *Metro*, *Airport*, *Kabel*, even *Bernhard Gothic* and *Venus* are a few present-day examples of the popular *Monolines*.

Over the years, the *Monolines* have most often been called "Gothics". Which is interesting, inasmuch as they are not remotely Gothic in their origin or in their structure. The true *Gothics* resemble *Old English*.

More recently it has become knowledgeable to refer to the current *Monolines* as "sans serifs". Which of course they are. It is also true that all Frenchmen speak French, but it does not follow that all men who speak French are Frenchmen. Neither does it follow that all "sans serifs" are *Monolines*. *Empire*, *Radiant* and *Broadway*, for instance, do not have serifs, but they are not *Monolines* nor even "Gothics".

And that brings up the question, what is a serif?

THE MONOLINES WITH SERIFS

Letters drawn in clay or cut in stone are not always as distinct as might be desired. If the light falls on them wrong, it is often hard to tell just where a line ends. To make very certain that there could be no mistake about this, the early Romans began the practice of ending each line with a crossline. So a serif is no more than a convenient way of saying, "right here is where this line ends." And perhaps because it didn't look right to them to put serifs on some letters and not on others, they sometimes added them where they weren't really needed.

If we were to put serifs on *Vogue* or *Futura* or most of the other *Monolines*, we'd have a type face which looked a lot like *Stymie* (page 20) or *Memphis* or *Girder*. These are typical *Monolines with Serifs*.

and Equipment

THE THICK AND THINS

As the pointed stick gave way to the chisel, it became possible to make lines uniformly thick or thin, and letters became more sophisticated. The *Thick and Thins* should have been the next step in the evolution of type. But they weren't. Serifs still served a useful purpose and besides, they looked nice.

So the *Thick and Thins* are synthetic faces without prototypes. Perhaps that is why they have never been very popular. They look somehow unfinished, naked. Which they are. They need serifs.

There are not many examples of the *Thick and Thins*. *Empire*, *Radiant* and *Broadway* are among the few. *Lydian* (page 25) is an exception. While technically it belongs to this group, it has borrowed something of the classic beauty of the early Roman alphabets. Compare its upper case, for instance, with *Facade* (page 26). The latter is taken directly from lettering on the Trajan Column in Rome.

THE THICK AND THINS WITH SERIFS

The Romans had come to like serifs. Now that they could control the thickness of lines at will, they discovered that the combination of thick and thin lines with serifs was a particularly pleasing one. Not austere. Not too fancy. But just right.

The lower case alphabet came a little later and followed the invention of hand writing implements. The influence of these tools is revealed in its less angular, more rounded and freely flowing shapes. The serifs persisted, not alone because of the Roman's predilection for them, but because they were a natural consequence of the tools used.

That the upper and lower case alphabets (of the *Monolines*, too) harmonize so well together, is purely providential. And considering that the evolution of these faces was governed entirely by other factors, it is an amazing coincidence that they conform so closely to now known principles of optics.

For as a type face gets smaller and/or bolder, there is a tendency

for the *islands* to fill in. The only remedy for this is to make some of the lines surrounding the *islands* thinner — giving more room for the *islands*. Although a *Monoline with Serifs*, *Stymie Extra Bold* (page 20) illustrates this point. Thus, more than any other, the *Thick and Thins with Serifs* remain very readable even in the smallest point sizes and even in bold face.

The *Thick and Thins with Serifs* can be counted in the hundreds, but *Caslon*, *Garamond*, *Bodoni*, *Craw Modern* and *Clarendon*, and *Wide Latin* are among the more popular for display purposes.

THE HANDLETTERS

There is a large group of faces which is rapidly growing in popularity today and which can only be described or classified as the *Handletters*. *Priscilla* and *Imagination* (page 28) are examples of these.

From a very practical standpoint, the *Handletters* should also be subdivided into those which connect and those which do not. *Dom Bold* and *Dom Casual* (page 27) are examples of the latter.

THE MISCELLANEA

Some faces almost defy classification and, for this reason, don't really require it. Others, of course, are so seldom used as to not warrant it.

The more conventional faces are always a safe choice. It's pretty hard to get into trouble talking softly.

On the other hand, the fellow who jumps up and down a little, waves his arms, and raises his voice above the din, is more apt to get attention.

Here, on the pages which follow, are the type faces which will give voice to your printing. Now you can call out your wares. Maybe you'll want to shout a little. Perhaps you'll even whistle!

HOW TO SET VARIGRAPH HEADLINES THE SIZE YOU WANT

Most VARIGRAPH users prefer to set their headlines like repro proofs, then cut them apart and paste them into position on the mechanical or paste-up. Besides being faster, this makes it easier to center headlines perfectly and to arrange them to best advantage.

Although few headlines must be set to an exact width, nevertheless a rough idea of how much room the headline will take is most desirable, else it may turn out to be too long or too short, the letters too large or too small.

Several methods for scaling headlines are available to the VARIGRAPH user. All are based on the geometric ratio of a projected headline to an actual line of type having the same letters or the same number of letters. Which method you choose depends upon the degree of accuracy required.

By far the most popular method is a simplified version of character counting, and the first step is to count the number of letters in your headline. The next step is to look up the type face you are going to use and count off the same number of letters on the alphabet in the *Type Catalog*. The pica grids (underprinted in light blue) will show you about how long your headline would be if set in 24-pt. type. The type size and length of your finished headline will be in the same proportion.

Another method, which is somewhat more accurate because it employs the same letters of the alphabet found in your headline, consists of setting a trial headline to any convenient size. To save time, it is not necessary to complete each letter so long as the outside width of the letter is clearly shown.

Once you have your trial headline, you can determine the type size and length of your projected headline in either of two ways. You can work it out mathematically, using the proportions (type size to length) of your headline to find the dimensions of your projected headline. Or you can use the same method as for

scaling photographs. Thus, you would draw a diagonal within the rectangle formed by your trial headline. Any larger or smaller rectangle constructed on the same diagonal will be in exact proportion.

Where the width of the headline is critical, or where it must be exactly centered or positioned directly on the copy (as with paper offset plates), there is a third method which assures absolute accuracy yet is easy and takes little time.

Simply lay out a right angle with one side the exact length you want your headline to be. Then set a trial headline just inside the right angle with the tops of the letters running along the second side (see Fig. No. 1).

The size of your trial headline is not too important, but it is better if it is slightly larger than the headline you want. Here, again, there is no need to complete each letter, but be sure to note what type size you are using.

When you have finished your trial headline, run a hypotenuse from the top right corner of your last letter. Then draw a line from the top left corner of each letter and parallel to the hypotenuse. Trim your right angle along the side opposite the type and tape into position on your art work or copy.

The points where the parallel lines intersect the side of the right angle will locate the top left corners of the corresponding letters in your finished headline (see Fig. No. 2).

The type size must, of course, be in exact proportion to that of your trial headline, although the height of the letters can be greater or less than is normal. In actual practice, it is usually satisfactory if parallel lines are drawn only to every second letter; these letters are then put in and the others centered between them.

The accuracy possible with this last method cannot be equalled except by optical means and it is well worth the few minutes extra time it takes.



TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

SIMILAR TO VOGUE LIGHT																																												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	&																		
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z																			
\$	1	2	3	4	5	6	7	8	9	0																																		

SIMILAR TO FUTURA MEDIUM																																													
93U (19-96)	93L (14-72)																																							93FL (14-72)					
93U (14-72)	93FU (14-72)																																												
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	&																			
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z																				
\$	1	2	3	4	5	6	7	8	9	0																																			

93SU (19-96) 93SU (14-72)		SIMILAR TO FUTURA MEDIUM ITALIC																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																											
abcdefghijklmnopqrstuvwxyz																																											
\$!234567890																																											

SIMILAR TO FUTURA DEMIBOLD																																											
9U (19-96)						9U (14-72)																						9FU (14-72)						9UL (7-36)									
9FU (19-96)						9L (14-72)																						9FL (14-72)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																											
abcdefghijklmnopqrstuvwxyz																																											
\$1234567890																																											

HOW TO WRITE EFFECTIVE COPY

Except in the case of keyed advertising, the measurement of response is never an exact science, and the question of what copy is effective and what is not, must remain largely a matter of personal opinion.

Readership surveys are as straws in the wind. But the fact that an ad was noted or read by a significant percentage of readers does not answer the all-important question, "Did anybody buy?"

Certainly a two-headed woman would be thoroughly noted by all who passed her, but it is extremely doubtful that she would acquire many suitors for her hand in the passing.

Now although it may be impossible to measure the effectiveness of a specific ad or piece of copy, it is nevertheless entirely feasible to *plan* our copy to be effective.

The same *control technique* responsible for many of the revolutionary developments of the space age is readily available to us in advertising. For our *control* we need only to have a kind of advertising for which the results are known. This requirement is fully and exclusively met by keyed advertising which has *sold* something (as distinct from getting enquiries) or, in other words, by *mail order* and *direct mail*.

On analysis, a striking difference is instantly apparent. We find that keyed advertising is *selling* copy. It has no other purpose. And there are no adulterants. From its working headline to its convenient coupon or order blank, it is simple, straight-

forward and direct. It has been stripped of all nonessentials, is utterly devoid of all frivolity, humor and cuteness. It makes no attempt to compete with the editorial content, or to amuse or entertain. You will find in it no sophomoric preoccupation with words and syntax. It approaches the vernacular often, in that it *talks* with the reader rather than writing to him. It informs fully, sometimes even to the point of seeming redundant. And it is far too busy *selling* to worry about impressing anybody (except, of course, the reader—and then only with the necessity and urgency for ordering at once!).

If, then, you would write effective copy, it is evident that you must write with a *purpose*. And that purpose must be to *sell*. There can be no compromise. You must build-up within yourself such conviction and urgency that it is communicated full-strength to the reader. You must handle each assignment as though your very life itself depended upon results.

In order to sell, you've got to know *what* you're selling. So don't write any copy until you ask yourself this simple question:

1. What am I trying to sell?

If for instance it's a gasoline ad, don't put down *gasoline*. Because people don't buy gasoline—they buy better mileage, quicker starting, less carbon, windshield service, road maps, courtesy, and other things you'd never even dream of.

So in order to answer your first question, you've got to ask a second question:

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
\$1234567890

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
\$1234567890

**ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
\$1234567890**

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
\$1234567890

2. Who are my prospects?

Because, if you don't know your prospects, you don't know *what* they'll buy or *why*. You can't know them sitting in an ivory tower or a bull pen. You've got to get out and meet them. Mix with them. Live with them. Learn how they think; learn to think like they think. To talk like they talk. Above all, listen to their "gripes" and dissatisfactions.

"Yeah," says one of your prospects, "we use Orbit gas sometimes. Got one of their credit cards. But you wanta know something? My missus gets embarrassed as all get out having to ask the attendant for the key. Why in heck don't they leave their danged rest rooms unlocked?"

In the process of getting to know your prospects, there will emerge what may be called the *standard prospect*—a sort of composite of all your prospects rolled into one. He is no more a stranger than the man next door. Or your favorite bartender. He is approachable. Likeable. Predictable. Easy to talk with. Because you know him.

But you aren't ready to write anything yet. First, you must have the *big idea*. Call it the copy slant, theme, gimmick, anything, but it comes before all else. And that brings us to your third question:

3. What benefits can I offer him?

Here's where you find your *big idea*. It shouldn't be something everyone else is doing. It should be dramatic. And it helps if it can be easily presented. Getting the *big idea* is the most difficult and the most important part of writing effective copy. And the *big idea* becomes your headline.

You talk to motorists. You talk to anyone who has a car. You talk to yourself even. And you talk in your sleep. Let's see, now: how about printing the road maps in luminous ink so they can be seen at night? No. Not enough people travel at night. And probably too expensive. But you're not licked. Why not some kind of a stamp deal tied-in somehow with mileage? So motorists will hunt up Orbit stations. Not bad. Might run into trouble in some states. But worth keeping in mind.

That little guy whose missus hated to ask the attendant for the key. Now *there* was a character! But come to think of it, not so very much unlike your standard prospect. Seems like he, too, mentioned those keys. Maybe that's the key to . . .

Hey, wait a minute! What's this you're saying about keys? Wow! You've got it! You've got the *big ideal* You'll give keys—gold plated keys, maybe—to all Orbit customers. And, brother, will that tie-in with some swell copy. You can see the headline now:

Only ORBIT Gives You the Key to Motoring Comfort!

So now you've got the *big idea*. All that remains is to tell the little guy and his missus about the wonderful Orbit key that opens the cleanest rest rooms in America! Nothing to it. He and his missus are friends of yours. Just tell them they'd better hurry. There aren't enough keys for everyone. Tomorrow may be too late. So be sure to stop in at one of the following Orbit stations right away, *today*, for *your* key!

Keyed advertising? Perhaps that's it!

and PRODUCTION HANDBOOK

SIMILAR TO
FUTURA ULTRABOLD

SIMILAR TO
FUTURA ULTRABOLD CONDENSED

SIMILAR TO
FUTURA ULTRABOLD CONDENSED ITALIC

SIMILAR TO
FUTURA DISPLAY

COPY FITTING

THE BLOCK METHOD OF COPY FITTING

The Block Method for copy fitting has been developed expressly for readers of this book to provide them with a better, easier and quicker way to find out how much room their copy will take, as well as the type style and size in which it will set.

The Block Method offers considerable advantages over former methods. It is based on the simple principle of a direct mathematical relationship between the area of your copy in square inches and the amount of space it will take when set in type.

A Type Size Value has been assigned to each of the several different sizes, but there are no lengthy or complicated tables or scales to refer to. You are not hamstrung by column widths. In fact, you can decide upon the column width after you have found out how much space your copy will take!

It is the only method with built-in leading or line spacing. If you want one- or two-point leading, you merely use the Type Size Value for the one- or two-point larger type body.

Since this is an area method, all measures are based on the familiar inch scale (which is easily converted to picas and points) and the only tool you need is an ordinary desk ruler!

To use the Block Method, your copy must be double-spaced and typed on a standard (non-proportional spacing) typewriter. The

Type Size Values given in the table below have been set up for both pica and elite typewriters, with the pica shown in bold face and the elite in light face.

TYPE SIZE VALUES

Point	6	7	8	9	10	11	12	14	16	18
Size										
Pica	4.1	4.8	5.5	6.2	6.9	7.6	8.3	9.7	11	12.5
Elite	5	5.8	6.7	7.5	8.3	9.2	10	11.7	13.3	15

The Block Method uses but one formula and a very simple one:

$$(\text{Total Sq. Inches Copy}) \times \frac{(\text{Type Size Value})}{(\text{Character Count})} = \text{Area of Type}$$

As you can see from this formula, you will have to know the character count (the average number of letters contained in ten picas) for the type you are using. Most printers' catalogs that show type specimens for text or body copy rather than for display, give the character count.

Where this information is not readily available, you can determine the character count by just dividing the number 46 by the length in inches of the lower case alphabet.

To illustrate, this copy will be set in 8-pt. Cornell, the lower case alphabet of which looks like this:

abcdefghijklmnopqrstuvwxyz

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

99U (14-72)
99L (14-72)

SIMILAR TO
VENUS BOLD EXTENDED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
VWXYZ & abcdefghijklmnopqr																																									
stuvwxyz \$1234567890																																									

95U (14-72)
95L (14-72)

SIMILAR TO
VENUS EXTRA BOLD EXTENDED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
VWXYZ & abcdefghijklmnop																																									
qrstuvwxyz \$1234567890																																									

965U (19-96)
965L (14-72)

965L (14-72)
965FU (14-72)

SIMILAR TO
FRANKLIN GOTHIC CONDENSED

965FL (14-72)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ &																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

96U (19-96)
96L (14-72)

96L (14-72)

SIMILAR TO
FRANKLIN GOTHIC EXTRA CONDENSED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ &																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

You will find that this measures exactly 1-7/16" or (since decimals are easier to work with than fractions) 1.4375 inches. Dividing this into 46 gives 32 as the character count.

The next step is to compute the total number of square inches represented by the area of your typewritten copy. Here, again, we will use the copy you are now reading for our example. It is being double-spaced in elite type.

Measuring the width of the typewritten lines on the first page with an inch ruler, we find that they average 5-1/8" or 5.125 inches. The depth of the typewritten area is exactly nine inches. Note particularly that your page depth will always be in inches and thirds of an inch, thus: 8", 8.33", 8.66", 9", 9.33", 9.66", 10", etc.

Multiplying the width, 5.125", by the depth, 9", we arrive at 46.13 square inches for our first page of copy.

(Obviously, copy cannot be measured before it is written, so the figures which appear in the following formula have been inserted after the copy was finished but before it was sent to the printer.)

With the other pages of copy, this gives us a total for the entire article of 165.6 square inches. We already know that our character count is 32, and from the table of Type Size Values above we learn that the value for 8-pt. type is 6.7. We now have all the figures needed to fill out our formula:

$$165.6 \times \frac{6.7}{32} = 34.67 \text{ Sq. In.}$$

Had we wanted to use 2-pt. leading, instead of setting solid, we would simply have substituted 8.3 (the Type Size Value for 10-pt. type) for 6.7 in the above formula.

It should of course be evident that any one factor in this formula can be computed when all others are known.

Having the area of our type in square inches, rather than in the number of lines of an inflexible column width, gives us much greater latitude than with any other method. We can vary the width and depth inversely to fit any reasonable requirements.

However, we are going to set these columns 20 picas wide. That is 3-5/16" or 3.312 inches. By dividing this figure into the area of our type, we discover that we will have 10 1/2", for about 91 lines of 8-pt. type. It will be interesting to see how close we come.

Since the Block Method must be based essentially on the same factors as previous methods, it can be expected to be neither more nor less accurate. How close you come, depends upon the accuracy with which you make your measurements and computations.

So now you have a better, quicker, and far more flexible way to fit your copy: all you do is measure your typewritten copy in square inches and multiply this by the Type Size Value divided by the character count!

However, don't expect to use the Block Method for headlines or display type. How to set your VARIGRAPH heads to exactly fit a given space, as well as how to center them, is explained in detail at the bottom of the article on Type, page —.

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

43U (14-72)
43L (14-72)

SIMILAR TO
EX LIBRIS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

90U (19-96)
90U (14-72)

90L (14-72)

SIMILAR TO
STANDARD (EUROPEAN)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

975U (19-96)
975U (14-72)

975L (14-72)
975FU (14-72)

SIMILAR TO
ALTERNATE GOTHIC NO. 2

975FL (14-72)
975UL (9-48)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

94U (19-96)
94U (14-72)

94L (14-72)

SIMILAR TO
MONORAIL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

MASKS, OVERLAYS & SCREENS

What has cropping a photograph got to do with the silk screen shop down the street or across town? The answer is, absolutely nothing; unless, of course, you are already cropping photographs without putting a crop mark on them anywhere.

This new — or at least, little-known — technique can save a lot of time, trouble, and money for everyone involved. Yourself. The offset cameraman. The stripper and opaquer. Just about everyone who handles the photo. And it will save a lot of mistakes.

For one thing, it eliminates the familiar jumble of crop marks. Moreover, it leaves nothing to the judgement or discretion of someone who cannot be expected to know you specifically wanted to include or exclude some inconspicuous but equally important detail.

And it guarantees that your photograph will be cropped exactly the way you wanted it. Because you, yourself, will actually be cropping the negative.

You can thank your silk screen shop for this. Not for the cropping method, of course, but for the stencil film which has made it both easy and practical.

You are probably already using this ruby or amber-colored stripping film on your mechanicals. It's one of the fastest and best ways to make blackouts or windows for halftones and tints. It also gives excellent copy for color blocks.

To crop your next picture with this new technique, all you

need is a sheet of stencil film a little larger than the photograph — which should be mounted. Be sure to lay the material *film-side-up* over the photo. Fasten it in place with a strip of masking tape along one side as a hinge.

With a frisket knife and straightedge, cut the four sides of a rectangle, enclosing that part of the picture you wish to reproduce. Be careful not to cut through the clear plastic underneath the film. Very little pressure is needed to cut the film, and if done properly, there is no danger of marking or "trenching" the photo. As a precaution at first, you can put a piece of cardboard between the stencil material and the picture after marking but before cutting the mask.

As soon as you have cut the crop lines, all that remains is to peel or strip away that film which is *outside* the rectangle.

Instructions regarding size can be put right on the mask, *inside* the rectangle, with a black grease pencil.

Camera procedure is simple.

The photo *must* be taped to the copy board, after which a sheet of white enamel stock is placed between the photo and hinged mask.

A straight line shot is made of the mask, and the negative left in the camera.

The mask and paper are then removed, and a normal halftone exposure made of the photograph.

What happens, of course, is that the white paper drops out all

TYPE CATALOG and PRODUCTION HANDBOOK

SIMILAR TO

[illegible]

SIMILAR TO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

SIMILAR TO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ& \$1234567890																																									

SIMILAR TO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
\$1234567890&																																									

TYPESETTING MACHINES

Whether or not he invented movable type, certainly it was Gutenberg who in the fifteenth century brought it to a practical stage of development. He devised individual letters which could be hand set, printed from, distributed back to their cases, and used again and again.

This created the need and provided the basis for the invention of the first type setting machines four hundred years later. These could accurately be described as *cold type* machines. That is to say, they did not cast the type from molten metal. And they were type setting machines in the truest sense of the words, for their nimble steel fingers actually picked up each piece of foundry type and set it just like a hand compositor.

A number of these machines were made and put into service, but none of them was commercially successful. When they worked at all, they were not enough faster than hand composition.

Their most serious shortcoming, however, was that although they set type, they failed utterly to solve the equally slow process of hand distribution.

What was needed, obviously, was a machine which could produce its own type; in this way, the used type could be simply remelted.

And it was not long before such a machine made its appearance. Called the *Linotype**, it was the development of a German inventor named Mergenthaler. It is worth noting that the *Linotype** does not set type; rather, it sets the molds or matrices

from which the type is cast.

Incredibly complex, nevertheless the principle of the *Linotype** is simplicity itself. The molds or mats are arranged in channels above the keyboard. Depressing a letter on the keyboard, releases the corresponding mat. When enough of these has been assembled to fill the line, molten metal is poured into them, and a line of type is cast. Afterwards, the keyed mats are carried to the top of the machine, from where they drop back into their respective channels.

Perhaps the most brilliant feature of the *Linotype** is the method of justifying a line. This is accomplished by inserting wedge-like *spacebands* between words. These expand to take up whatever space is necessary to fill out the line.

The *Intertype** followed soon afterward, and is quite similar in appearance and principle, but the *Monotype** differs somewhat from both. In at least one respect, it resembles some of the recent *cold type* machines in that its keyboard is a separate unit which punches or perforates a paper "piano" roll. It does not cast a line of type, but molds each letter individually.

All of the above are *hot metal* machines; all have keyboards.

A logical case could be made for separating the *hot metal* from the *cold type* machines. But such a division has the fault of tending to limit, by implication at least, each to its particular sphere, while denying the oftentimes advantageous interchangeability of both.

ORPLID

\$1234567890

STANDPOINT

abcdefghijklmnopqrstuvwxyz
\$1234567890

STANDPOINT ITALIC

abcdefghijklmnopqrstuvwxyz
\$1234567890

STANDPOINT CONDENSED

ABCDEFGHIJKLMNOPQRSTUVWXYZ
\$1234567890

One *cold type* headline machine does, however, merit special attention. It is called the *Varigraph** and is the only one which is non-photographic in principle. The fonts, which are always visible, are engraved in nearly indestructible light metal matrices, and are of a size convenient to handle and manipulate. A unique feature is a clever proportional arrangement which produces hundreds of sizes from a single font, as well as special camera modification effects. The *Varigraph** delivers repro proofs on any stock, including paper offset plates. Because of its unequalled versatility and utter simplicity, it is easy for even the smallest shop to own and operate.

and PRODUCTION HANDBOOK

SIMILAR TO																																											
STYMIE MEDIUM																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																											
abcdefghijklmnopqrstuvwxyz																																											
\$1234567890																																											

82FU (14-72)		82U (14-72)		SIMILAR TO																																					
82FL (14-72)		82L (14-72)		STYMIE BOLD																																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890&																																									

84U (14-72)		SIMILAR TO																																							
84L (14-72)		STYMIE BOLD CONDENSED																																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	4
ABCDEFGHIJKLMNOPQRSTUVWXYZ & abcdefghijklmnopqrstuvwxyz \$1234567890																																									

81U (19-96)										81L (14-72)										SIMILAR TO										81FL (14-72)											
81U (14-72)										81FU (14-72)										STYMIE EXTRA BOLD																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

phenomenon occurs. The light entering each mesh or aperture in the screen is found to be brightest at the center of the opening.

It is entirely due to this phenomenon that the halftone process works. Yet the exact cause has been the subject of much debate.

Earlier investigators believed that it resulted from the diffraction of light. They explained that the rays of light entering the halftone screen were bent more and more away from the centers and toward the sides of the openings. Those rays nearest the edges were bent the most and fanned out behind the lines of the screen into contiguous areas.

Most modern researchers, however, account for this phenomenon by the penumbral effect. They point out that as an object is moved away from its shadow, the outline of that shadow becomes less sharply defined. They maintain that the halftone screen merely casts its shadow upon the focal plane. This shadow deepens as it goes behind the opaque lines, and lightens from the lines outward toward the centers. As might be expected, they regard diffraction as nothing more than an annoying complication.

In support of their theory these recent investigators have succeeded in producing satisfactory halftone dots a square foot in area, which would certainly appear to rule out the diffraction theory.

Both theories have their adherents, and you can choose the one that appeals to you most. The end result is the same in either case—the area covered by the light has become greater than the area of the opening. Thus it follows that the level of the light will always fall off the further you go from center, even though the level of light may be raised proportionately throughout the area.

Now if we had a negative material which was critically sensitive to all light above a certain level, then the size of the dot would depend upon how far the critical level of light had spread out from the center. And this of course, would depend directly upon the intensity of light entering the opening in the screen. Luckily, the high contrast, line sensitive materials used in halftone work do meet this requirement.

Put simply: the more light, the bigger the dot on the negative. All we have done is to substitute dots of corresponding size for the tonal values of a continuous tone print. But in the doing, we have obtained a line cut which can be reproduced in only two tones and is thus suitable for either letterpress or lithography.

Mention should be made here of the contact screens now almost exclusively used in photo-offset. These screens also accomplish the same end result, but they do not depend upon the penumbral effect or the diffraction of light. Instead, continuous tone density is introduced from the center toward the sides, so that the level of light passed by each opening falls off as it approaches the sides.

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

81SU (14-72)
81SL (14-72)

SIMILAR TO
STYMIE EXTRA BOLD ITALIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890&																																									

83U (16-82)

SIMILAR TO
PLAYBILL

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
\$1234567890																																									

34U (14-72)
34L (14-72)

34FU (14-72)
34FL (14-72)

SIMILAR TO
BODONI BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

34SU (14-72)
34SL (14-72)

SIMILAR TO
BODONI BOLD ITALIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

COLOR THEORY AND PRACTICE

Red, yellow, and blue are not the primaries used in color work—or anywhere else for that matter. The mistaken notion that they are, is but one of many concerning this field. There are others.

For instance, contrary to what most people think, you do not see an Ektacolor* print or a magazine cover by reflected light. The screen in color printing is not to keep the different colors from overlapping. And finally, the familiar four-color process is not a four color process at all.

Clerc Maxwell laid the foundation for all modern color processes around 1860 when he reasoned that white was not itself a color but a combination of all the colors of the visible spectrum, which he divided into three empirical bands of red, green, and blue. By adding light of these colors from three separate lanterns, he produced the sensation of white light, and these became known as the additive primaries.

Later workers theorized that the human eye is equipped with three color receptors, each selectively sensitive to or stimulated by one of the three additive primaries. This tends to explain why a white object appears brighter to us, since all three of our color receptors are at work.

Of course, the colored glass Maxwell used in his lanterns was really filters, a filter being a transparent material which transmits light of one wave length while rejecting all other colors.

If, with the foregoing in mind, we will take a sheet of white

paper and regard it not as white, but merely as being capable of reflecting nearly equal amounts of red, green, and blue light, it will become evident that we could control the color reaching our eyes by filtering out one or two of the three additive primaries. If we should choose a blue filter, we will see the paper as blue, because the filter is transmitting that wave length and absorbing the red and green. Also, the white paper appears about one-third as bright, because only our blue color receptors are at work.

Now if we add a red or a green filter to the blue, a curious thing happens. The blue filter will transmit only blue light which can't get by the red or green filters, and we don't see anything at all.

From this it will be obvious that any process which employed the additive primaries would run into two difficulties: first, it would suffer in brilliance; and second, no two of the primaries could be allowed to overlap.

Fortunately, there is a very simple and easy solution. Let's take a magenta filter. This filter transmits both the red and blue primaries, but stops the green. For this reason, it is often called minus green. Looking through it, we see that the paper now appears as a bluish-red and is fairly brilliant since two of our color receptors are called into play. To this magenta filter let us add a cyan filter. The cyan filter passes blue and green light, but stops the red. Similarly, it is called minus red.

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

35U (14-72)
35L (14-72)

SIMILAR TO
ULTRA BODONI

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V																																									
W X Y Z & a b c d e f g h i j k l m n o p q r s t u																																									
v w x y z \$ 1 2 3 4 5 6 7 8 9 0																																									

35SU (14-72)
35SL (14-72)

SIMILAR TO
ULTRA BODONI ITALIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V																																									
W X Y Z & a b c d e f g h i j k l m n o p q r s t u																																									
v w x y z \$ 1 2 3 4 5 6 7 8 9 0																																									

36U (14-72)
36L (14-72)

SIMILAR TO
NEW CASLON

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

36SU (14-72)
36SL (14-72)

SIMILAR TO
NEW CASLON ITALIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

Whereas, when we combined the two additive filters we saw nothing, this time the paper looks blue. Which is due to the fact that the magenta filter is stopping the green light, and the cyan filter is stopping the red light, leaving blue the only color which can get through both filters.

We still have a third filter left, and this one will transmit only red and green light. However, when we look through it, we will be surprised to discover that the paper looks neither red nor green—but yellow! Yellow is minus blue.

Should we put the three filters together, again we would see nothing, for the blue light which is being passed by the first two filters is stopped by the yellow filter.

Magenta, yellow, and cyan are called the subtractive primaries because they each represent the spectrum with one of the additive primaries removed or subtracted. And by now it will be apparent that these are the colors we have erroneously been calling red, yellow, and blue!

When we bring a color transparency in front of a white sheet of paper, we say that we are viewing it by transmitted light. No one will disagree with that statement.

When we look at a heavy oil painting, we are told that we see it by reflected light. No one will argue that point either. In fact, the artist could have started out with a black canvas and ended up with a painting of a lovely blonde in her bridal gown standing against a summer sky!

But when we look at a magazine cover in colors, we are assured that we are seeing it by reflected light. Let those who believe this try printing that cover on black stock.

About here it will occur to us that the attractive colors we see in our transparencies are, in effect, filters. This is entirely correct. And the same thing is true of the process colors on our magazine cover. They, too, are filters. They are not opaque. They are transparent. They transmit light, but they reflect light poorly if at all.

Some of the early color picture processes which depended upon the additive primaries, used a uniform or mosaic screen to prevent these primaries from overlapping and producing black. This has led many to believe that the halftone screen found in a process color print serves the same purpose. Actually, as we learned in *The Halftone Process*, this screen is necessary only to enable the various tones to be translated into dots which can be reproduced by the letterpress and lithographic processes.

Why, then, turn the different color screens at an angle to each other? This is also done in black and white printing, where two screens are superimposed, to prevent an objectionable moire pattern.

The blacks used in color transparencies are not always true blacks. Often they have a blue, green, or brown cast. This defect is even more noticeable in three-color process work. These degraded blacks are due to the fact that man has not yet been able to develop ideal or perfect dyes, filters or inks. As a result, all of these pass some light from neighboring bands.

In process color work this problem has been solved in part at least by introducing a black plate. But black is not a color. On the contrary, it is the absence of all light. So the four-color process is actually the three-color process with some unwanted colors taken away by a black plate!

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

38U (14-72)
38L (14-72)

SIMILAR TO
GARAMOND BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

385U (14-72)
385L (14-72)

SIMILAR TO
BERNHARD MODERN BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

3U (14-72) 3FU (14-72)
3L (14-72) 3UL (7-36)

SIMILAR TO
COAST SURVEY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V																																									
W X Y Z & a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

3SU (14-72) 3SUL (7-36)
3SL (14-72)

SIMILAR TO
COAST SURVEY ITALIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T U V																																									
W X Y Z & a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

PAPER WEIGHTS, GRADES, SIZES

There may well be those who suspect there is a conspiracy to make paper weights difficult to fathom. Actually this is not so. It only seems that way because the weights of different kinds of papers are determined by their end use. Once this is understood, all else falls nicely into place.

Let us take bond papers, for example. While they enjoy many other uses, most bonds end up as 8½" x 11" letterheads. Consequently, a paper mill will produce more bond paper in sheets 17" x 22", a convenient multiple, than any other size.

It is most logical that in seeking a unit on which to compute bond weights, the manufacturers should have chosen the most frequently used sheet size as one of the constants. The other constant, of course, is the quantity which is always one ream or 500 sheets.

Thus when someone refers to a paper as being, for instance, 24-pound bond, what they are really saying is that 500 17" x 22" sheets of that paper would weigh 24 pounds. This is called the basis weight.

Even if you should get this same paper in 34" x 44" sheets (four times the size) it would still be a 24-pound bond, although 500 sheets would weigh 96 pounds (four times as much).

Five hundred 17" x 22" sheets of bond paper may weigh as little as 13 pounds—if it's 13-pound bond. There is also a 16-pound bond, and from there the weight makes four-pound jumps all the way to 44-pound bond.

Each of the different weight bonds is available in some seven standard sheet sizes, 17" x 28", 19" x 24" and so on.

The 34" x 44" sheet we used above for an example was obvious, but it is often useful to be able to figure the weight of other sizes which are not multiples of 17" x 22" and are not, therefore, as obvious. It's easy to work this out with proportions. Proportions are the old familiar "this is to that, as X is to a different that." Say you want to find the weight of a ream of 24-pound bond, sheet size 19" x 24", then your formula will look like this:

$$\frac{24 \text{ (basis weight)}}{17 \times 22 \text{ (basic sheet)}} : \frac{X \text{ (unknown weight)}}{19 \times 24 \text{ (desired sheet)}} = 29\frac{1}{4} \text{ pounds}$$

So much for the bonds, but how about the book papers? First, let's remember the rule about end use. Book papers aren't cut into letterheads; they are used for printing books. Since they don't have the same end use, we can't expect them to have the same weights. And they don't. Most books, but by no means all, are printed from 25" x 38" sheets, so the paper mills have settled upon this basic size as the yardstick for computing the weights of book papers.

And right here is where most of the confusion starts. You could expect a 24-pound bond and a 24-pound book paper to be

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

30U (14-72)
30L (14-72)

SIMILAR TO
CRAW MODERN

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
abcdefghijklmnopqrstuvwxyz &																																									
nopqrstuvwxyz \$1234567890																																									

29U (14-72)
29L (14-72)

SIMILAR TO
CRAW MODERN BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
abcdefghijklmnopqrstuvwxyz &																																									
nopqrstuvwxyz \$1234567890																																									

28U (14-72)
28L (14-72)

SIMILAR TO
CRAW CLARENDON

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																									
abcdefghijklmnopqrstuvwxyz &																																									
\$1234567890																																									

86U (14-72)
86L (14-72)

SIMILAR TO
GOUDY BLACKFACE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ &																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

the same weight and about the same thickness. Basic sheet-for-basic sheet, they are the same weight, but since the book sheet is over twice as large as the bond sheet, it follows that it must be somewhat less than half as thick.

Actually, 60-pound book would be the equivalent of 24-pound bond. As a rule there's no good reason for converting from one category of paper to another, since they are rarely used interchangeably. Offset paper, however, uses the same basis weight as book papers, and is an exception. To obtain equivalent weights, use the same "this is to that" formula as above.

Covers use a basic sheet size of 20" x 26". And other papers for other end uses have their own basis weights. But if you become familiar with bonds, books, and covers, you will have accomplished a great deal.

The question of paper grades, today, is apt to be more academic than real. There are, however, several things to watch out for. Perhaps the most important is the direction of the grain. If your stock folds, then the grain should preferably run in the direction of the fold. Most papers can be obtained with the grain the way you want it.

More "wish-I-hadn'ts" can be traced to the use of colored stocks than anything else. There is an absurd notion that you can achieve expensive multi-color effects thereby. And of course you can't. At best, colored stock just makes your printing harder to read. You may run into trouble finding envelopes to match. And at worst, you're apt to discover that your beautiful stock was merely colored to hide inferior quality.

Whether you decide on coated or uncoated stock depends, first, on whether you are running letterpress or offset. If offset, then the use of coated stock is more a matter of aesthetic considerations, because lithography can put almost anything, from a line cut to a fine screen halftone, on almost any kind of stock.

This is not true of letterpress. If you are running halftones, you will need a coated stock. And the finer the screen, the better the stock should be.

And irrespective of whether you go letterpress or offset, if you are running three- or four-color process, you need the best coated stock money will buy. It must possess exceptionally high reflectance, be an optically pure white (some stocks may look white, but are an off-shade which will seriously alter the color balance of your plates and inks), and should be non-absorbent. For if the process inks penetrate, instead of lying on the surface, they will darken and become dull and drab.

You may have heard it said that any offset paper can be run letterpress, but that not all letterpress stock can be run offset. This is only partly true. While it is a fact that many coated papers cannot be run offset, it is also a fact that most textured and embossed stocks just cannot be printed letterpress.

It's nice to know all there is to know about paper. But very few ever do. So it's wiser to put the onus of paper selection on the bowed shoulders of your printer. Or if you do your own printing, on the shoulders of your paper house. This is one time where you may save a lot of grief and money by passing the buck. If you don't want to do that, then the best rule to follow is: don't get fancy; keep it simple. It's a good rule anyhow!

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

64U (14-72)		SIMILAR TO																																									
64L (14-72)		DOM BOLD																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																											
abcdefghijklmnopqrstuvwxyz																																											
\$1234567890																																											

65U (14-72)				65FU (14-72)				65L (14-72)				65FL (14-72)				SIMILAR TO DOM CASUAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

63U (14-72)				63FU (14-72)				63L (14-72)				63FL (14-72)				SIMILAR TO BALLOON EXTRA BOLD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

635U (14-72)		SIMILAR TO																																									
635L (14-72)		STREAMER BOLD																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ																																											
VWXYZ&abcdefghijklmnopqr																																											
stuvwxyz \$1234567890																																											

RELIEF OR LETTERPRESS PRINTING

If relief or letterpress printing (and they are, of course, the same thing) had not been a plateless process, the graphic arts would have been, in all probability, held back several centuries, and mankind today would be worrying about the coming industrial revolution instead of about automation and radiation.

Because movable type, which the Chinese are generally credited with having invented around the eleventh century, would have been impossible from a practical standpoint. For it requires a plateless process.

Moreover, relief or letterpress is the only plateless process.

All of which raises two questions: what is a plateless process; and why can no other process be plateless?

Defined very simply, a plateless process is one wherein the printing form can be composed or made up of any number—even thousands—of small, separate pieces or parts. Such, for instance, as movable type.

The answer to the second question involves the location of the non-printing area. If the non-printing area is on the same plane with the printing surface (as is the case with the planographic processes) or if it is above the printing surface (as with

the intaglio processes), then it follows that it must inevitably come in direct contact with both the ink supply and the stock.

In either position, it will be inked and will print on the stock, unless a means is provided to keep the ink off the non-printing surface or to remove it from that surface.

It is evident that any break in the non-printing surface would create a trap for the ink. Or to put it another way, all such breaks or separations would act as an intaglio printing area.

Therefore, a non-printing area above or on the same plane with the printing area must present a continuous and unbroken surface, a condition which cannot be fulfilled except by a plate. Under these circumstances, the possibility of movable type is ruled out.

If, however, the non-printing area is below the printing surface (as it is with relief or letterpress) then it is separated by physical distance from both the ink supply and the stock. In this position it cannot be inked, nor can it print, so its surface (floor) can be broken wherever necessary. Movable type thereby becomes a practicality.

An ordinary rubber stamp furnishes a convenient example of the letterpress principle. Although this is in fact a relief plate,

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

SIMILAR TO INTERLOCK																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A A A A B B C D D E E E E F F G G H H I I J K L M N N N																																									
N O O P P Q R R S S S T T U U V V W X Y Y Z ? !																																									

62U (14-72) 62L (14-72)		SIMILAR TO BRUSH																																									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
		ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
		abcdefghijklmnopqrstuvwxyz																																									
		\$1234567890																																									

SIMILAR TO PRISCILLA																																											
67U (14-72)																																											
67L (14-72)																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
a	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	&																	
abc	def	ghi	jkl	mno	pqr	stu	vwx	yz																																			
\$	1	2	3	4	5	6	7	8	9	0																																	

SIMILAR TO IMAGINATION																																													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42				
A B C D E F G H I J K L M N O P Q R S T U V																																													
W X Y Z + a b c d e f g h i j k l m n o p q r s t u v w x y z																																													
\$ 1 2 3 4 5 6 7 8 9 0 a c d e g h k l m n r s t u v w y																																													

it will be easy to see how this could just as well be composed of a number of separate pieces without affecting its ability to print.

It is perhaps understandable that those coming into this field for the first time should believe that everything is printed by "offset". It must indeed seem so to them, for very often the only equipment they see is lithographic.

But it is a tragic mistake for these newcomers to assume that relief or letterpress is the "old fashioned" way of doing things. Admittedly, it is the oldest known printing process (and, as we have seen, it is most fortunate that this is so). But while its supremacy has often been challenged, it still accounts today for a greater volume of printing than all the other processes combined.

Because it is a plateless process, letterpress forms can be made-up at the last minute before going to press. They can be corrected, revised or re-arranged at any time and with little or no trouble. Space can be inserted or removed at will. All of which makes it the ideal process for newspaper work, as well as for printed forms which are subject to frequent change.

Furthermore, because its non-printing area plays no active part (beyond furnishing a base for the printing surface) it is the simplest and most dependable of all processes.

It is a rugged process. More or less as a result, it is also a ponderous process. A letterpress form is almost an inch thick,

often too heavy for one man to lift. This, coupled with the failure of letterpress manufacturers and photoengravers to meet the early challenge of photolithography, accounts for the tremendous inroads made by the latter.

To some extent the future of letterpress will depend upon its willingness to borrow those features which have contributed to the immense popularity of photolithography.

The development of **offset relief** is a step in the right direction. So, too, are the new, smaller, lighter, faster presses now being offered.

Plastic printing plates weighing little if any more than an offset plate, will play an increasingly important role.

But if letterpress is to do more than hold its own, it must become also a photographic process. Far fetched though this may seem, it may be nearer at hand than is realized. The fairly recent electronic or scanning engravers, though still far too slow and far too expensive, could well help bring this about.

Another important development in this direction is the new photopolymers, such as duPont's Dycril* plate. If these, through increased use and research can be made competitive with the offset plate in cost and ease of processing, many a photo-offset door will be opened wide to **photorelief**.

In the final analysis, neither intaglio nor offset lithography can ever be plateless processes. But relief or letterpress can be either!

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

58U (14-72)

SIMILAR TO
FASCINATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S S																																									
T U V W X Y Z + a b c d e f g h i j k l m n o p q r s t u v w x y z a m r t																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

56U (14-72)
56L (14-72)

SIMILAR TO
BALLPOINT SCRIPT

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T																																									
U V W X Y Z & a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

6U (14-72)
6L (14-72)

SIMILAR TO
KAUFMAN BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P 2 R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

53U (14-72)
53L (14-72)

SIMILAR TO
KAUFMAN SCRIPT

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P 2 R S T U V W X Y Z &																																									
a b c d e f g h i j k l m n o p q r s t u v w x y z																																									
\$ 1 2 3 4 5 6 7 8 9 0																																									

“DRY OFFSET” OR OFFSET RELIEF

In this process, a shallow relief plate is substituted for the usual lithographic plate, and the press is run with the dampeners off.

The process offers definite advantages in certain cases and might have won wider acceptance by offset printers, as well as arousing more interest among letterpress men, if it had not been for two relatively unimportant circumstances.

The first stems from the fact that the plate cylinder must be machined or turned down to accommodate the somewhat thicker relief plate. Far too much has been made of this, with the result that many offset printers have gotten the notion that once a press has been so converted, it is no good for lithography thereafter.

This is not true. And for some obscure reason, the far more important fact that such a press can be changed from one method to the other at a moment's notice, seems to have been entirely overlooked.

In order to run an offset plate on a press which has been modified for relief printing, it is only necessary to place a shim

between the plate and the plate cylinder, which will bring the offset plate to the proper height. The dampeners, of course, will have to be turned back on.

The other fact which may have hurt its popularity, especially among letterpress printers, is that some of its sponsors continue to refer to it as “dry” offset. This is a little like referring to a pen as right-handed or left-handed. Since there is no such thing as “wet” offset, obviously there can be no such thing as “dry” offset. The distinction, which can no doubt be traced to the fact that the offset process has mainly been associated with photolithography, is both unnecessary and confusing.

It is interesting to note that the Germans, as far back as around the time of the First World War, were peddling a novel and somewhat amazing offset jobber or platen press.

This behemoth, which vaguely resembled an old Colt's Armory, carried the letterpress form on the back of the press. An offset roller took the impression from this form and transferred it to an offset blanket on front (where the type form would normally be) from which it was transferred to the stock. Double

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZE																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

[illegible][illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																									
abcdefghijklmnopqrstuvwxyz																																									
\$1234567890																																									

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

55U (14-72)	SIMILAR TO																																										
55L (14-72)	VIEWPOINT																																										
ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz \$1234567890																																											

52U (14-72)	SIMILAR TO																																										
52L (14-72)	LEGAL SCRIPT																																										
A B C D E F G H I J K L M N O P Q R S T U																																											
V W X Y Z & a b c d e f g h i j k l m n o p q r s t u v w x y z																																											
1 2 3 4 5 6 7 8 9 0																																											

54U (14-72)	SIMILAR TO																																									
54L (14-72)	COMMERCIAL SCRIPT																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
ABCDEFGHIJKLMNOPQRSTUVWXYZ &																																										
abcdefghijklmnopqrstuvwxyz																																										
\$1234567890																																										

4U (14-72)		SIMILAR TO																																									
4L (14-72)		CHAPEL																																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
ABCDEFGHIJKLMNOPQRSTUVWXYZ&																																											
abcdefghijklmnopqrstuvwxyz																																											
\$1234567890																																											

SILK SCREEN & STENCIL PROCESSES

The same unique advantages which commend the silk screen and mimeograph processes for certain applications, also have worked to their detriment.

Compared with plates, stencils are cheap. Silk screen printing can be accomplished with a minimum of equipment and outlay. All that is needed is a wooden frame like a window screen, a few yards of organdie, some show card colors, and a rubber blade for a squeegee. This has led many, with no other qualification than the daring, to set themselves up in the business. As a result, sorry examples of silk screen printing are all too common, and this has fostered the belief among some that the process is incapable of anything better.

The mimeograph process has suffered from similar misuse. Yet each is a reproduction process in its own right. Both are stencil processes. Each can be used to advantage where other reproduction processes are economically or technically impractical. And both have recently come of age.

The stencil processes date back to earliest antiquity, when they were used for applying decorative borders and patterns to walls and all manner of other objects. But a stencil is a fragile thing, whether made of paper, film, or thin sheets of brass. And it is composed of many separated pieces, called *islands*, which must somehow be held together. Originally, this was done with connecting strips or *ties*. The breaks in the letters necessitated by these ties, are shown in the type face, *Stencil* (page 26).

It was not until the latter part of the last century that the principle of mounting a stencil on a porous support and thus eliminating the ties, was conceived.

The stencil processes are never thought of as being planographic, although their printing and non-printing areas are on the same plane. And the stencil is never referred to as a plate, although it is exactly that.

The printed area of other reproduction processes is limited by the size of the press or the plate. Not so with silk screen. The size that a silk screen job can be printed in one piece, is limited only by practical considerations. The wooden frame can be built to almost any size. So it is mainly a question of when it becomes unwieldy.

At one time, all silk screen stencils were cut by hand. The larger ones still are, although the lettering is often cut on a big *Varigraph**. With the aid of an opaque projector, copy can be blown-up and reproduced with photographic accuracy. Simple line art work or illustration therefore will not add appreciably to the cost.

Multi-color effects are particularly economical, since usually the same stencil can be used for all, appropriate areas being blocked-out during successive color runs.

It is safe to say that more varied surfaces can be printed on with silk screen than with any other process. Because the hinged frame is most often set up on a large table, corrugated paper,

TYPE CATALOG and PRODUCTION HANDBOOK

41U (14-72)
41L (14-72)

OLD ENGLISH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &																																						
a b c d e f g h i j k l m n o p q r s t u v w x y z																																						
\$ 1 2 3 4 5 6 7 8 9 0																																						

25GU (14-72)
25GL (14-72)

GREEK ALPHABET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
ΑΒΓΔΕΖΗΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ&																											
αβγδεζηθικλμνξοπρσςτυφχψω																											
\$1234567890																											

74U (14-72)

HEBREW - YIDDISH (JEWISH)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41

”-“א-שתתדציקרפפתנוסעפלאמסחטיכדהוואבנג

\$1234567890

27U (7-96)

SHOPPING CENTER 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
<i>Special Only</i>					PKS.	BU.	PTS.	QTS.	GALS.	\$1.23459¢6780/					pr. ea.					off		2 for		Down
					BAGS	PACKS	PAIRS	BOXES	JARS	\$1.23459¢6780/												No.		
5432					PER S. DOZ.	* DOZ.	LBS. CANS	DOZ. Bottles	for					\$1.23459¢6780										

display board, *Masonite**, plywood, and even metal signs can be handled without any difficulty at all. Milk and beverage bottles, cosmetic jars, and vinyl containers (the latter inflated just before printing) have come within the special province of silk screen.

The stencil processes are slow. This is not due to what might be considered primitive equipment, for high-speed, fully automatic silk screen presses are available, but to the inks which are laid-on heavily.

Consequently, the stencil processes demand special drying techniques. Most mimeograph machines employ some form of slip sheeting, and silk screen jobs are always racked as they come from the frame.

It is this characteristic heavy deposit of ink which peculiarly fits the silk screen process for the printing of electronic circuits.

With the fairly recent advent of the photographic stencil for silk screen work, and the much more recent electronic stencil cutter for the mimeograph, the stencil processes may be said to have come into their own.

It is largely due to the photographic stencil that silk screen has become a standard method for producing decals, instruction plates and other fine detail involving type even smaller than six point. And while not often used, sixty screen halftones are entirely practical. Process color has been accomplished more or less experimentally and with satisfactory results. The two biggest obstacles, a fine screen and uniform register, neither of which is possible with a cloth mesh, have been overcome with stainless steel

screens. These latter in combination with electrolytically formed metallic stencils, have produced process color work of excellent quality.

The electronic stencil cutter brings the tremendous advantages of photography to the mimeograph process. In principle, it is nearly identical to the electronic or scanning engravers used in letterpress. The stencil and copy to be reproduced are mounted around cylinders side by side. A photoelectric cell scans the copy and actuates a stylus which cuts the stencil.

The electronic stencil will reproduce all type and line art and is thus a natural adjunct to *Varigraph** composition. While present models will not make a halftone from continuous tone copy, they will however, reproduce a halftone from a halftone print.

The full and dramatic import of the electronic stencil cutter cannot be overemphasized, nor adequately appreciated except by comparing the work done on it with the limitations of the past. The quality of work is surprisingly good, although not yet up to the standards of which other reproduction processes are capable. It seems likely that improvements and refinements in the cutter, as well as in the stencils, and perhaps even in the inks, will have significantly narrowed the gap before this is in print.

Whenever short runs are contemplated, whenever plate costs would be a factor, whenever thickness or rigidity of the stock rules out conventional printing presses, and most especially for exceptionally large display areas and a profusion of colors, the stencil processes may well be your answer.

VARIGRAPH

SHOPPING CENTER 2

54321 PER * P'K'G'S DOZ. LBS.
lbs. doz. CANS Bottles FOR **for \$1.23459¢6780**

SHOPPING CENTER 3

Special Only PKS. BU. PTS. QTS. GALS. \$123459¢6780/pr. off 2 for Down
BAGS PACKS PAILS BOXES JARS \$123459¢678/0 ea. No.

54321 PER LBS. DOZ. for \$1.23459¢6780

SHOPPING CENTER 4

Special Only PKS. BU. PTS. QTS. GALS. \$1.23459¢6780 pr. **off** 2 for **Down**
BAGS PACKS PAILS BOXES JARS \$1.23459¢678 0 ea. No.

54321 PER LBS. DOZ. * LBS. DOZ. CANS DOZ. Bottles for \$1.23459¢6780

FRACTIONS

15	13	11	9	7	5	3	1	+	7	5	3	1	3	1	1	3	5	7	9	1	1	3	15	17	1	3	5	7	24	86
16	16	16	16	16	16	16	16	+	8	8	8	8	4	4	2	32	32	32	32	32	32	32	32	64	64	64	64	5	79	

1234567890\$¢%) $\frac{09}{09}$ ≡#+-0023456789
+-0023456789

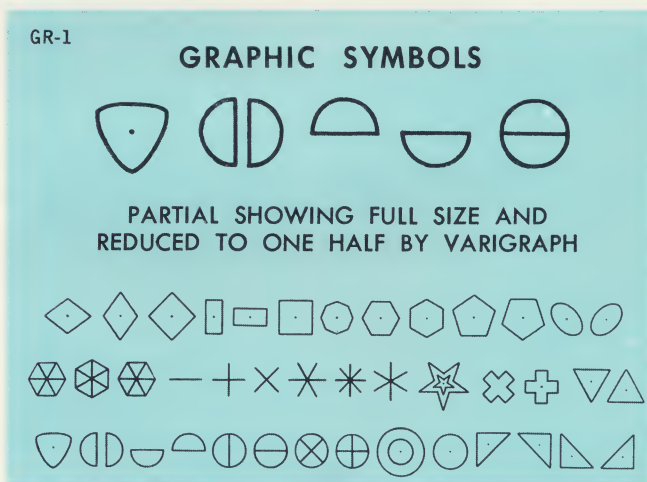
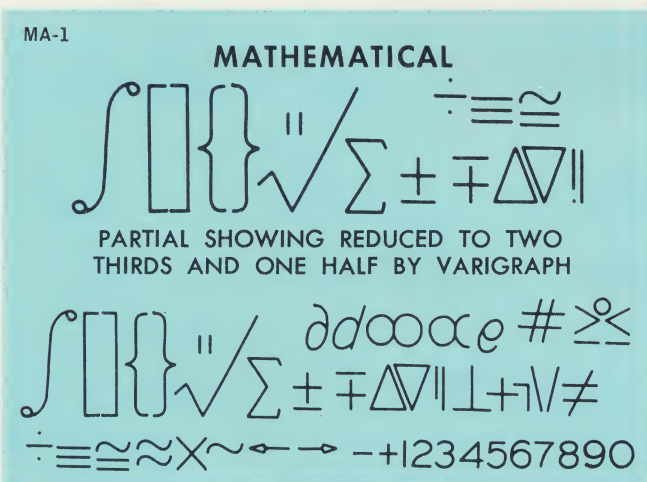
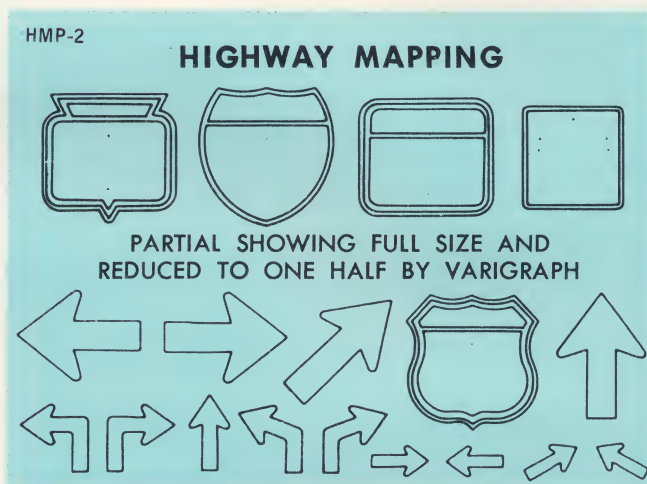
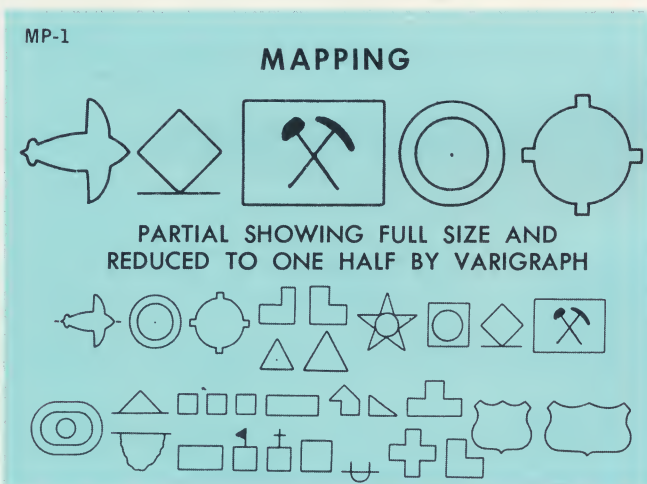
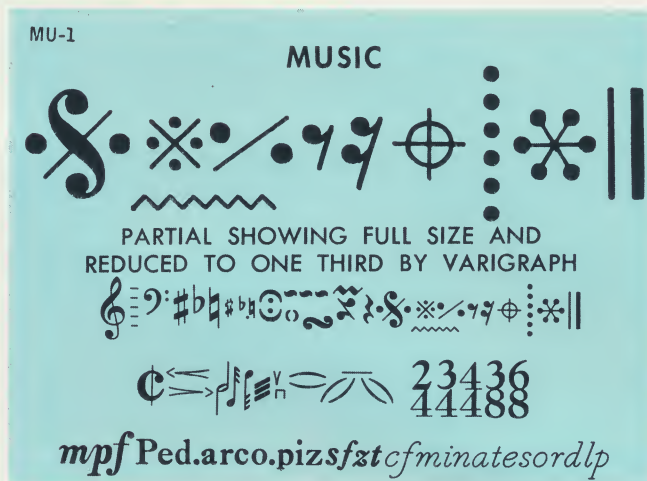
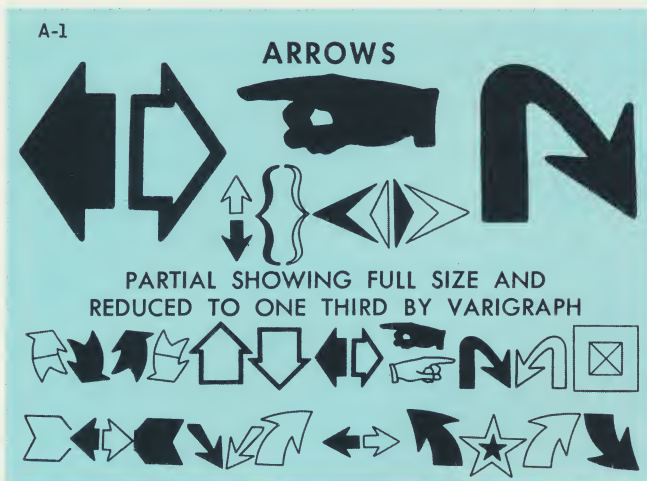
COLLOTYPE OR GELATIN PRINTING

The collotype method bears a strong resemblance to lithography; it is a planographic process and depends upon the principle that oil (ink) and water do not mix. It also has something in common with gravure, in that it is a screenless process and produces a true variable tone print. And photographers will note more than a slight similarity to the dye-transfer process.

The unhardened gelatin is not washed off. Instead, the plate is developed by a wetting process, the different tones rejecting the water approximately in the proportion to which they have been exposed to light.

Any continuous tone printing process faces the problem of preventing the various concentrations of ink from being displaced, by impression, into other areas where they do not belong. In gravure, this is accomplished by means of a uniform screen the only purpose of which is to isolate the various ink deposits from each other. In collotype, reticulation serves the same purpose; it divides and separates the entire surface into minute and mutually independent areas.

From here on, printing a collotype plate differs little from lithography. And even the same presses have been used. The



stock is brought in direct contact with the gelatin plate, for this is rarely an offset process.

Because the plate contains, in addition to the hardened gelatin, large areas of water-swollen gelatin of little more than jelly-like consistency, it is quite a fragile process subject to unforeseen mishaps. With the best of luck, it is capable only of comparatively short runs.

Nevertheless, for these short color-runs it is a very economical process and the quality of work compares very favorably with color gravure in appearance.

While Kodak's three-color separation and masking process produces excellent results with collotype, most of the old-timers prefer to "fake" the color. Even when furnished with color transparencies or prints, they will usually make black and white copies and perform the color separation "by gosh and by golly". Anyone would be fully justified in anticipating something pretty bizarre and artificial looking. But the results are really very good.

Copy for collotype reproduction should be in the form of paste-up or mechanical, the same as for photo offset. However, as pointed out above, there is considerably more leeway as regards color separation. Much of this can more conveniently be left to the collotype worker, and with better results.

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

951U (14-72)
951L (14-72)

SIMILAR TO
EUROSTYLE EXTRA BOLD

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S T																																									
U V W X Y Z & a b c d e f g h i j k l m n o																																									
p q r s t u v w x y z \$ 1 2 3 4 5 6 7 8 9 0																																									

645U (14-72)
645L (14-72)

SIMILAR TO
BANNER MEDIUM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
A B C D E F G H I J K L M N O P Q R S																																									
T U V W X Y Z & a b c d e f g h i j k l m n o																																									
p q r s t u v w x y z \$ 1 2 3 4 5 6 7 8 9 0																																									

E-2

SIMILAR TO
ELECTRONIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
SHOWN 1/3 OF FULL SIZE ON MATRIX																																									

E-3

SIMILAR TO
ELECTRONIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
SHOWN 1/3 OF FULL SIZE ON MATRIX																																									

PLEASE NOTE

All of the 1" or 19-96 pt. matrices cannot be used when the Varigraph is set for the maximum slant. The listing below shows the maximum slant possible for their use.

21U	(19-96)	25°	92CSU	(19-96)	10°
2U	(19-96)	25°	92CU	(19-96)	15°
81U	(19-96)	25°	93U	(19-96)	15°
83U	(16-82)	25°	93SU	(19-96)	15°
9U	(19-96)	25°	975U	(19-96)	25°
90U	(19-96)	15°	39U	(15-76)	25°
9SU	(19-96)	10°	965U	(19-96)	25°
91U	(19-96)	25°	71U	(19-96)	25°
91CU	(19-96)	25°	7U	(17-84)	25°
91SU	(19-96)	25°			

SIMILAR TO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

SIMILAR TO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

FELT TIP PENS

Ideal for filling in letters. The Felt Tip Pen with a Fine Point available in permanent or water colors—
8 Colors—Red, Blue, Black, Green, Orange, Purple, Brown, Yellow.

49¢
Each

Complete Set of 8 Colors
(Or Your Choice of Any 8)

\$3.90

FELT TIP PENS

EXTRA FINE PT. WATER COLOR ONLY 49c each
(Black only)

Set of 3 pens

\$1.45

Extra Fine (Black only)

Water Color

Fine (Choice of above 8 colors)

Water Color

Fine (Choice of above 8 colors)

Permanent

NOTE: When ordering specify point size and whether in water color or permanent color.

\$1.00

Extra Extra Fine Point with the magic "FLO-TIP" Replaceable Point.

Refills with a cartridge. **6 for 49¢**

PLEASE NOTE: The production Outfit and Office Outfit have the Felt Riter Extra Fine included.

GLOSSARY OF TERMS

ACCOUNT EXECUTIVE—An advertising agency member who “controls” one or several accounts and who is chiefly responsible for liaison between agency and client. A solicitor of new business.

ACTINIC—A characteristic of those colors of the spectrum which cause a chemical change in photosensitive materials.

ADDITIVE PRIMARIES—The additive primaries are red, green and blue, and are the complementaries of the subtractive primaries (q.v.). They are rarely used in modern color processes. See also article on Color Theory and Practice.

AGATE LINE—Originally a 5½ pt. type, but today the vertical unit (equal to exactly one-fourteenth of an inch) by which a column of newspaper advertising space is measured.

AIR BRUSH—A precision spraying device about the size of a fountain pen and connected by a hose to a controllable air supply which forces light-bodied inks and paints from a small reservoir cup. Used mostly for photo-retouching.

ALBUMIN—A colloid obtained from egg white, blood and similar sources, and which, like gelatin, is capable of being bichromated and forming a light-sensitive coating for relief and offset plates.

ALTERNATE LETTERS—Two or more versions of the same letter in a font; especially among the lower case letters of connecting scripts where the connectors often join at different levels in different letter combinations.

AMPERSAND—The name for the character “&” as distinct from the co-ordinate conjunction and. Used in firm names, titles, adlines; never in body copy.

ANILINE PRINTING—An intaglio process using light-bodied aniline inks or dyes especially adapted for printing on surfaces where the ink must have a solvent or “etching” action.

ASCENDER—The vertical member of a lower case letter extending above the main body of that letter. See descender.

BACK-UP—To print the second side of a sheet of paper.

BALLOON—A device popularized by comic strips and sometimes used in advertising illustration, whereby the words spoken by a character are encircled by a line coming from, or from the direction of the character's mouth.

BASIS—The most common sheet size on which the weight of a ream (500 sheets) of different kinds of paper is computed. See article Paper Weights, Grades, Sizes.

BEARERS—The excess or “dead metal” left surrounding a photo-engraving which is to be electrotyped or molded, the purpose being to compact the wax or molding material within the area. Also, separate bars for the same purpose.

BED—Originally the flat horizontal or inclined surface of a press which holds the chase. With the advent of metropolitan dailies and rotary presses, the term to “put the paper to bed” (i.e. to start printing it) persisted.

BEN DAY SCREEN—From the inventor, Ben Day, and originally printing screens of many and sundry patterns which were inked-up and printed upon an un-etched plate, the print forming part of the resist. Reverse effects were obtained by printing the screen on the negative instead. Now, loosely applied to similar effects obtained with overlays.

BICHROMATE—An orange-colored aqueous solution of potassium or (rarely) ammonium bichromate which when combined with gelatin or albumin produces a light-sensitive coating used as a resist in photoengraving and for offset plates, as well as being the basis for dye-transfer, collotype and other processes in the graphic arts.

BI-METAL—A planographic process related to lithography wherein the surface of the plate is composed of two different metals, one receptive to ink, and the other not. Principally limited to unusually long runs.

BLACKOUT—A black area or red overlay on a pasteup or mechanical having the exact position, size and shape of a halftone which will later be stripped-in on the line negative. See window.

BLANKET—Most commonly the rubber covering on the offset cylinder; also that on the impression cylinder of an intaglio press.

BLEED—Where part of the printing area intentionally runs off one or more edges of the page. Actually, most bleeds are accomplished after printing by trimming off part of the printed area.

BLOCK—A cut or photoengraving. Also a tint block. As a verb, to mount a photoengraving. More rarely, a block as of copy or text.

BRAND NAME—See trade mark.

BROADSIDE—Any large, one-page sheet, often printed on only one side, but sometimes folded-in to form smaller pages on the reverse side, the outside folds being usually designed as a self-mailer.

BROCHURE—Strictly, any book of eight or more pages and stitched; but generally applied loosely as an elegant term for any pretentious advertising piece whether stitched or not.

BURN—The act of printing a negative on a sensitized relief or offset plate. The term is a misnomer and arose from the fact that early operators mistakenly believed that heat from the carbon arcs then used was responsible for the chemical change in the bichromated coating.

“C” PRINT—Former and persisting designation of a tri-pack color negative print material manufactured by Eastman Kodak; now called Ektacolor*.

CAMERA LUCIDA—Also called a “lucy”. A prism arrangement whereby an object placed in front of the prism appears as an image on a drawing surface below the prism and is then traced.

CAMERA-READY—Strictly, a paste-up or mechanical combining all of the elements in proper form so that only one “shot” need be made for each color. In practice, a paste-up or mechanical may be considered “camera-ready” even though the halftones must be shot separately.

CAPTION—Properly a headline or title and especially of an illustration, but more commonly the description accompanying the illustration.

CARBRO PRINT—An elegant process now obsolete for making color prints from carbon tissues derived from color-separated bromide prints. Largely superseded by dye-transfer, wash-off relief and Ektacolor* prints.

CASTING BOX—A hinged metal enclosure in which a newspaper mat is placed for casting a stereotype.

CIRCULAR—A nondescript term usually applied to a piece poorly printed on cheap stock and distributed indiscriminately.

CIRCULATION—The average number of primary and legitimate readers a publication can prove (by paid subscriptions, post office records, requests, etc.) for a given period.

CHARACTER COUNTING—Counting the number of letters, usually in a typescript, and correlating this with the amount of space which will be needed to set the same number of letters in a given type face and size, or determining a face and size which will set that number of letters in a given space. See article Copy Fitting.

CHASE—A rectangular steel frame into which a type form is wedged or locked with quoins and which is then placed upon the bed of a press for printing. Also used where a type form is to be matted, electrotyped or molded or, more rarely, stored for re-use.

COLD TYPE—As contradistinct from type cast from molten metal and proofs pulled therefrom. Any of a number of methods for producing the printed word directly on sensitive paper or (in case of the Varigraph, q.v.) on any stock for reproduction.

COATED STOCK—Once a paper coated on one or both sides with kaolin or similar clay, but today the clay is more often mixed with the fibers during manufacture. Also papers coated or impregnated with plastics.

COLLATE—To assemble or gather sheets or signatures in proper sequence for binding or padding.

COLLOTYPE—See photogelatin process; also article on same.

*Not generic; a registered trade mark or proprietary brand name of the manufacturer.

COLOR PROOFS—The desirability of having a color proof from color-separated negatives prior to plate-making or printing has led to the development of a number of products which closely meet this need by means of color overlays. Typical are those films supporting line sensitive coatings of maximum density color-matched to one of each of the process inks. After exposure and during development all color is washed away save in the image areas. The overlays are then sandwiched together in register over white stock.

COLOR SEPARATED—A paste-up or mechanical where the printing colors have been separated as by overlays or similar means. Also, in process work, the continuous tone or screened records of the cyan, magenta, and yellow. See article on Color.

COLUMN—Lines of type arranged one under another with flush left and right margins. The horizontal unit of space corresponding to the vertical agate line.

COMBINATION PLATE—A photoengraving in which the characteristics of a halftone and a line plate are both present. Usually obtained by double-printing a negative from line art with one from continuous tone copy.

COMPREHENSIVE—A finished layout, but more detailed, accurate and elaborate.

COMPOSING STICK—A small hand-held tray adjustable for line width, in which a hand compositor sets his type.

COMPOSITION—The act and result of setting type by hand and/or machine.

CONTACT SCREEN—A halftone screen which differs from the conventional in that the screen apertures are characterized by a continuous, increasing density from the center toward the sides.

CONTINUOUS TONE PRINT—Specifically a photographic print, but any print not made with a halftone screen and exhibiting a complete and continuous tonal range from black, through all the middle tones, to white.

COPY—Reading matter as distinct from art or illustration. Any material prepared for camera. All original material for printing. The mechanical, plate or electro sent a publication. One of an issue of a printed piece.

COPY CASTING—See character counting.

COPYRIGHT—The proprietary right and title to reproduction in all forms of an artistic creation, held by the artist, author, his assigns or a business for a period of 28 years. Publication with the copyright notice must precede filing. Renewal cannot be assigned in advance except by testament.

COPYWRITER—A member of the creative staff of an advertising agency entrusted with preparing the reading matter of advertisements.

CREASING—Breaking the fibers of paper with a dull blade to facilitate folding.

CROPPING—Indicating by tissue overlay, drop-out mask, or pencil lines (which must not cross the photograph) that part of the photograph which it is desired to reproduce.

CURVED PLATE—A rigid printing plate (usually an electrotype or stereotype) shaped to fit around the plate cylinder of a rotary press.

CUT—Originally a printing plate engraved (cut) by hand. Now a photoengraving from line copy. Loosely any printing plate as distinct from composition. The original art from which produced.

CYLINDER PRESS—Any relief flat bed printing press where the paper stock is printed by being rolled over the type form by an impression cylinder.

DAY-GLO*—See fluorescent colors.

DEADLINE—The date on which advertising forms close for an issue; the date by which any job or parts thereof must be completed.

DEAD METAL—The blank, waste metal left around or within a photoengraving. It is routed out for printing but left in for matting or molding.

DECALCOMANIA—An adhesive film bearing a logotype or other advertisement and mounted on a paper support from which it can be floated onto glass or other smooth surface to which it adheres.

DEEP ETCH—A type of offset plate which is printed from a diapositive instead of a negative, the unexposed image being given a surface etch to provide "tooth" for the enamel, the resist being afterward removed. It provides a more rugged image because the enamel is laid directly on the etched surface rather than on top of the bichromate.

DESCENDER—That part, usually of a lower case letter such as p or q, which extends below the main body of the letter.

DIAPOSITIVE—See film positive.

DIFFRACTION—The bending of light rays by and in the direction of an opaque edge.

DODGER—A handbill or circular.

DOT ETCHING—Modifying the screen formation in a halftone negative by means of local chemical reduction.

DOUBLE BURN—Printing a sensitized plate from two (or more) different negatives, one after the other, in register.

DOUBLE TRUCK—Same as a center page spread.

DRILL—A drill enclosed within a round cutting die for punching binder holes in paper.

DROP-OUT—A halftone (negative, plate or print) in which certain areas, usually highlights, present in the original, have been removed as by masking or opaquing, to show a screenless white. Also silhouette drop-out in which all detail and dot formation beyond a central figure or shape has been similarly removed.

DRY BRUSH—A line art technique wherein the bristles of the brush are dry enough to be stiff and stand apart; used especially for shading.

DRY OFFSET—See offset relief.

DUAL-LITH*—Proprietary name for a line of highly advanced combination offset photolithographic and relief presses manufactured by the Davidson Corporation.

DUMMY—A physically exact representation of a proposed book or publication with or without layout.

DUOTONE—A two-color halftone print from a monochrome subject or without filtration. The negative for the dominant color (usually black) is made more contrasty while that for the second color is flatter. The screens are turned as in process work to prevent moire.

DYCRIL* PLATE—A plastic relief printing plate material developed by duPont and having the properties of a photopolymer. It is exposed through a negative as in conventional photoengraving, a pressurized alkaline spray being substituted, however, for the acid etch. It is of particular interest in connection with the offset relief process, q.v.

DYE-TRANSFER—An imbibation process for making color prints which supplanted the carbro process and utilizes a gelatin relief matrix.

EKTACOLOR*—Color negative sheet film and paper of tri-pack structure manufactured by Eastman Kodak. The roll film is designated as Kodacolor*.

EKTALITH*—Brand name of Eastman Kodak for a direct positive-to-positive photosensitive material, the image of which can be transferred to specially prepared paper offset plates.

ELECTROLYTIC ENGRAVING—A photoengraving process, in principle the reverse of electroplating, whereby the non-printing area of a relief plate becomes the positive pole and is etched away.

ELECTROTYPE—A duplicate plate made by taking a wax impression of an original, powdering the mold with graphite and electroplating it with copper. The copper shell is afterward backed-up with lead and usually mounted.

ELEMENTS—The various separate components such as heading, illustration, copy blocks, boxes, logotype, signature, coupon, etc., some or all of which may go to make up an advertisement.

ELITE—The smaller of the two most popular typewriter faces, there are 12 letters or 6 lines to the inch. See also **pica** (type-writer).

EMBOSS—To produce a raised design by impressing paper or other stock between a resilient blanket and an intaglio or female die. If a colored design, this is printed before embossing.

EMULSION—A suspension of silver halide crystals in gelatin (or, formerly, collodion) which is coated on an opaque (paper) or transparent (film) base or support to make it light-sensitive.

EN—Half an em q.v.

ENGRAVING—Short for photoengraving. Also steel die engraving where the design on the stock is raised or embossed as a result of being pressed into an intaglio or female die; distinct from thermography, q.v.

EXPLODED VIEW—A photo or drawing showing the separate components of an assembly as they would appear if removed radially from the assembly.

FILM POSITIVE—Also called a diapositive. A positive contact print on film base from a stripped-up negative mask and used for burning-in a deep etch offset plate, for exposing a silk screen photo-stencil, and (if a continuous tone print) for making intaglio plates.

FIXATIVE—A plastic or varnish coating which is sprayed over charcoal, chalk, pastel and other art work to protect and to prevent smudging.

FLASH EXPOSURE—A brief, all-over exposure to white light used to put shadow dots in the dense areas of a halftone negative. The screen is left in the camera, but the copy does not enter into the procedure.

FLAT TONE—A uniform screen pattern as distinct from a varying tone. Also a photograph exhibiting little contrast.

FLEXICHROME*—An Eastman Kodak process for making a hand-colored print from a black and white negative, discontinued in 1962. Ideal for fashion work and resembling a dye-transfer, it depended upon a gelatin relief matrix which accepted special dyes in proportion to its thickness. Different colors could be applied over one another, the last replacing previous colors. Flexichrome* dyes are still available and preferred for retouching various natural color prints.

FLEXOGRAPHIC—The printing usually upon rough textured or irregular surfaces and upon plastics with a rubber or similar plate.

FLOCKING—Short fibers or pile or other particles are blown onto a design printed with an adhesive ink to which they adhere.

FLUORESCENT COLORS—Any of a class of poster and printing inks containing natural or synthetic phosphores which emit a broad spectrum of visible light while absorbing ultra violet light.

FLYER—A hastily prepared announcement, broadside or bulletin usually printed on one side.

FLY LEAF—The blank leaf found at the beginning and/or end of some books.

FOLDER—Properly a small printed piece several pages wide and folded to page size; also a booklet of several folios saddle-stitched.

FOLDING ENAMEL—Originally a second grade of stock preferred for folding and owing this quality to shorter fibers. Most papers today are made by interweaving long and short fibers to improve folding.

FOLIO—Usually a sheet of paper folded once to form four pages. Also the individual page number.

FONT—An assortment of metal type (or molds) all of the same type face and point size, consisting of the complete alphabet, numerals, and punctuation marks, the quantity of each character being determined by its frequency of use in proportion to the number of letter "e's".

FORM—All the type and plates needed for printing one side of a sheet or page in one color, assembled, made-up and generally locked in a chase.

FORMAT—The distinctive and recurring treatment of a page or pages, usually of a publication, achieved through page size, stylized composition and make-up. Also the preliminary concept of a proposed advertising piece.

FRISKET—Essentially a stencil which is cut on a photograph or art work to protect certain areas from air brushing. Also in printing, a stencil-like mask placed between inked form and stock to prevent unwanted areas from printing.

FURNITURE—Large flat blocks of wood, not type-high, used to fill in the blank areas of a type form locked in a chase. Also of type metal for the same purpose.

FRENCH FOLD—Printing a sheet of paper on one side only and then folding into quarters so it appears as two leaves printed on both sides.

GALLERY CAMERA—A photoengraving or offset camera with film back at one end of a track supporting a movable copy board at the other end.

GALLEY—A shallow metal tray, open at one end, on which type forms are stored or carried when not locked-up in a chase.

GALLEY PROOF—Any proof from type not locked-up, but most often applied to continuous columns of type which has not been made-up page-wise.

GATE FOLD—Folding a sheet twice so that the ends meet at the center.

GATHER—See collate.

GAUGE PINS—Flexible-tongued guides attached to the tympan of a platen press and to which stock is fed for proper register.

GHOSTING—Lightening extraneous detail or background in a photograph so as to emphasize the principal object. Usually by air brushing, but also with overlays.

GLOSSY—As distinct from matte. A photographic paper which when ferrotyped presents a slick, shiny surface, preferred for reproduction.

GLUB BALL—See pick-up.

GRAIN—Directions of fibers in paper stock. Folds against the grain are less satisfactory. To determine direction of grain, tear a sheet across both dimensions; the even tear will be with the grain, the ragged tear, against it. Also the molecular structure presented by a printing plate.

GREAT PRIMER—An 18 pt. Roman face once widely used for elementary texts because of its legibility.

GRIPPER MARGIN—That part of the sheet along the lead edge which is caught by the grippers on the impression cylinder and does not come in contact with the plate or form. Usually width-wise to the stock on small presses, lengthwise on large presses.

GUM—A protective coating applied to an offset plate to prevent oxidation when not in use.

GUTTER—The left and right margins adjacent to the center fold.

HAIRLINE—The rule itself, or the fine line produced by the narrowest printing rule.

HALFTONE—A photoengraving from continuous tone copy, in which the middle tones are reproduced by dots of varying size. See article, *The Halftone Process*.

HANDBILL—A circular, q.v., passed out by hand.

HEADLINE—The descriptive introduction set in large type above a news story, article, or advertising piece.

HEADLINE MACHINE—Any of a number of hot metal or cold type composing machines especially adapted for setting display and large type sizes, as opposed to text or body copy. See *Ludlow** and *Varigraph**, etc.

*Not generic; a registered trade mark or proprietary brand name of the manufacturer.

HEADWRITER*—A recent model of the Varigraph* (q.v.) incorporating a number of advanced features which make it superior to other cold type headline machines for many applications.

HIGHLIGHT—The dazzling light reflected by the teeth, eyes and hair and by certain parts or planes of shiny surfaces. That part of art work in which there is no tone, or of a halftone in which the dots are mainly lost.

HOOK—That part of the copy in an ad which impels prompt and favorable action by the reader.

HOT TYPE—The type, or the impression from type, which has been cast in a mold or matrix from molten metal, as distinct from the more recent so-called cold type methods. See under Varigraph*.

HOUSE ORGAN—A private periodical published by an organization for its employees (internal) and/or its public (external).

IBM—The initials of International Business Machines, but often associated with an electric proportional-spacing typewriter of their manufacture; also the typescript therefrom.

IMAGE—Any object projected upon a focal plane by a lens. The printing area of an offset plate. More recently, the (favorable) way a corporate entity would like to look to the public.

IMPRESSION—The amount of force with which stock is brought in contact with a plate or form. Also each piece printed in a press run.

IMPRESSION CYLINDER—The cylinder in a flat bed or rotary press which carries the stock against the plate or form.

IMPRINT—A dealer's or distributor's name printed at a separate time on an advertising piece, usually in space provided therefor.

INSERT—A sheet or several sheets furnished by the advertiser and bound into a publication.

INTERTYPE*—A typesetting machine with keyboard which sets the matrices and casts the type therefrom in a solid line or slug. See article, Typesetting machines.

ISOMETRIC—A three-dimensional drawing, usually of a mechanical or technical object, in which there is no foreshortening.

JOBBER—See job press

JOB PRESS—Also called a jobber. A term applied most often to small, hand-fed open presses which operate on the principle of two jaws (the platen and the bed) which open and close to receive the paper stock and press it against the type form.

JOGGER—A vibrating platform or trough where stock is placed on end to even-up the edges preparatory to feeding, trimming, folding, padding, etc.

JUSTIFY—Causing long and short lines alike to end flush at the right margin of a column.

KERN—An extension of the face of a letter beyond the supporting body of the type.

KEY—An advertiser's address containing a code which tells the publication and insertion to which each reply should be credited for measuring response.

KEY LETTERS—The corresponding letters on copy and layout which show where the copy goes.

KEYLINE LETTERS—An outline letter produced by the Varigraph* (q.v.) and which lends itself to color work and special effects.

KEYLINE MECHANICAL—A mechanical (q.v.) wherein a thin black line is drawn to form the boundaries between different color areas. Later, the line becomes the outside edge of each color plate so that the colors overlap to the extent of the line.

KNEADED GUM ERASER—A non-crumbling, lead eraser having the consistency of moist dough.

KODALITH*—Brand name for paper and negative materials manufactured by Eastman Kodak for the Graphic Arts.

LAYOUT—An artist's rendition showing what the finished ad will look like. Heads and sometimes subheads are lettered in, but text is indicated by ruled lines.

LEADERS—Usually dots, but sometimes dashes, to guide the eye across an open break in a line.

LEADING—To put more space between lines of type. In machine composition, common practice is to set type on larger slug; eight point face on a nine point or ten point slug for example.

LEADS—Shim-like metal spaces inserted between lines of type to set them further apart. Leads usually range from one to six points thick.

LETTER SPACING—To insert additional space between the letters of a word or words set (usually) in caps, to fill out a line or for appearance.

LIGATURE—Two, sometimes three, letters joined together on one body in the order in which they frequently appear.

LIGHT TABLE—See stripping table.

LINE-COPY—Any art work or other copy which can be reproduced by letterpress or photo-offset without a halftone screen.

LINE CUT—A photoengraving from line copy (q.v.), made without a halftone screen.

LINE DRAWING—Any drawing in which there are no middle tones and in which shading (if any) is obtained with black and white lines or with screen overlays.

LINE-UP TABLE—A frosted-glass topped table illuminated from beneath and mounted with two precision straightedges either movable at right angles to the other. Used to assure alignment of paste-ups, mechanicals, stripped-up negatives, etc.

LINOTYPE*—A typesetting machine with keyboard which sets the matrices and casts the type therefrom in a solid line or slug. See article, Typesetting Machines.

LITHOGRAPHY—Forerunner of all present day planographic processes and based on the principle that oil (ink) and water do not mix; the name is indicative of the stone used to print from. See article, Offset Printing.

LOCK-UP—The act of putting a relief form in a chase and wedging it tightly in place with quoins.

LOGOTYPE—A plate or electrotype of any frequently occurring device such as a masthead, title or slogan, but especially the firm name in an advertisement.

LUDLOW*—A machine for casting a line or slug of display or large type in hot metal from hand-set matrices. See article, Typesetting Machines.

MAKE-READY—Letterpress; the procedure of building up the surface of the platen or impression cylinder (overlying) to compensate for high and low spots in the printing form, as well as for light and heavy areas. The same result, obtained by building up the type form from underneath (underlying). Also the adjustment of impression and inking.

MAKE-UP—The assembling and arrangement of all the type and cuts needed for a page or printing form according to a plan or layout and ready for lock-up.

MARGINATOR*—A device which can be fitted to most typewriters and which makes the lines comprising a column all the same width.

MASK—Generally a transparent overlay bearing opaque areas for covering various parts of art work. Also a photographic negative or diapositive used for color correction, etc. Less frequently, the stripped-up negatives or stencil from which an offset plate is made.

MAT—See matrix.

MATRIX—The individual mold from which a letter is cast. Rarely, an electrotype mold or a stereotype mat. Also the light metal templet on which Varigraph* fonts are engraved.

MEASURE—The width, usually expressed in picas, to which a line or lines of type are to be set.

MECHANICAL—The complete copy including art work and composition and usually on mounting board, which is photographed to make a plate. A mechanical is generally more complicated than a **paste-up** (q.v.) and involves some color separation, either by keyline or overlays. Carefully scaled blackouts are substituted for halftones which will be shot separately.

MEDIA—The means by which an advertisement is reproduced and distributed to the public or a segment. Billboards, direct mail, magazines, newspapers, radio, television, etc., are examples.

MILLINE—The space rate of a publication per agate line adjusted to a circulation of one million. Used to equate publications having different rates and circulations.

MIMEOFAX*—Proprietary name for an electric stencil cutter of A. B. Dick manufacture.

MIMEOGRAPH—A class of duplicating machines which print through a stencil.

MODIFICATION—To change by optical and photographic means the proportion and/or perspective of type-set or other copy.

MODEL RELEASE—Legal permission to use a person's photograph for advertising purposes.

MOIRE—An interfering checkered pattern sometimes observed when photographing a halftone print through a halftone screen, it is caused by laying one screen over another with the mesh parallel and can be minimized by turning one of the screens about 15° to 30° with reference to the other, as is done in process work.

MOLD—Also mould. Generally the wax mold in which an electrotpe is formed; also a thermosetting matrix for molding thermoplastic and rubber plates. Rarely, a newspaper mat or the matrix of a hot metal type casting machine.

MONOTYPE*—A hot metal typesetting machine which casts each letter separately as in hand set type. The independent keyboard punches a "piano roll" which is later used to actuate the caster. See article, **Typesetting Machines**.

MONTAGE—See photomontage.

MORTISE—Also mortice. To cut, or the slot cut in a relief plate so a change can be inserted.

NEGATIVE—The primary photographic record of an image, in which black and white values are reversed.

NONPAREIL—An obsolete type size, now a six point reglet, lead or slug.

NON-PHOTOGRAPHIC—A descriptive term applied to the **Varigraph*** (q.v.) to distinguish it from other cold type headline machines which are dependent upon complicated and costly photographic principles.

OFFSET—Generally offset photolithography, but any printing process in which an intermediate surface transfers the impression from the plate or form to the stock. Also the wet ink transferred from one sheet to the sheet above it after printing.

OFFSET LITHOGRAPHY—See lithography; also offset relief.

OFFSET RELIEF—Sometimes called "dry" offset through confusion of offset with lithography. Actually, any printing process where an intermediate surface transfers the impression from the plate or form to the stock, is an offset process. Here, the offset plate is replaced with a thin relief plate which requires no dampening.

OFFSET SPRAY—Used on letterpress and offset presses to prevent the still wet ink from printing (or offsetting) from one sheet to the sheet above. The spray deposits a fine layer of powder which separates one sheet from another. See slip sheet.

OPAQUE—A dense water color used to cover pinholes and parts of a negative which should not print, also for silhouetting halftones. The thick black ink used by artists on acetate overlays.

OVERLAY—Sometimes a tissue but most often a transparent film placed over art work to superimpose other art work or screen patterns in register therewith, to be photographed at the same time or as a second color. Also stencil sheets similarly used or as masks.

OVERPRINT—The printing of type matter upon or over a previously printed panel, screen or halftone. Distinct from **surprint**, q.v.

OVERRUN—The number of impressions printed over the quantity ordered. An under- or overrun of up to 10% is permissible.

PADDING—Arranging trimmed sheets in weighted stacks or in a padding press, with separators placed at intervals. Padding cement is applied to one side of the stack. When dry, the stack is slit apart at the separators, into pads or tablets.

PAMPHLET—A small booklet or folder consisting principally of text, as a tract, and usually with a self cover.

PAPER NEGATIVE—Identical in principle to a glass or film negative, but much cheaper, and because of the grain of the paper not suitable for fine work.

PAPER PLATE—A specially impregnated paper offset plate on which typing and art work can be done directly. Also available presensitized. Not suitable for fine work, long runs or close register.

PASTE-UP—A mounting board onto which are rubber cemented into exact position and (usually) same size repro proofs and other elements as they will appear in the printed job. Although loosely used interchangeably, paste-ups generally involve only line work and one color, are much less complex and require less experience and skill than a **mechanical**, q.v.

PATENT BASE—A honeycombed, channeled or grid-like metal base, type-high less the thickness of the plate, and to which a plate is ingeniously and securely clamped or mounted for printing.

PERFORATING—A separate process performed on a perforating machine and consisting of a close series of tiny round holes (as on postage stamps) to facilitate tearing apart. Also slit perforating, done with serrated cutting rules when printing (wet) or separately (dry).

PERSPECTIVE—True perspective is that effect of depth or third dimension achieved by an artist whereby all lines of a drawing or illustration coincide in direction and proportion with the corresponding lines in the actual object as viewed by the human eye or a normal camera lens.

PHOTOCOMPOSING MACHINE—See **Step-and-Repeat**.

PHOTOGELATIN PROCESS—Also called **collotype** and a planographic process somewhat similar to lithography in principle, in that the printing area of a gelatin plate is made water-repellent, while the non-printing area is water-receptive. See article on **Collotype Printing**.

PHOTOLITHOGRAPHY—A planographic process derived from lithography and wherein the image is formed by photographic means. See article, **Offset Printing**.

PHOTOMONTAGE—A group of photographs, usually of a related subject, apparently arranged haphazardly and at various angles, some overlapping others; generally to be later photo-engraved.

PHOTOSENSITIVE—See sensitive materials.

PHOTOSTAT—A print produced on a special camera using photosensitive paper in rolls and exposing through a prism at the lens so that the resultant print (a negative) will read right. A positive is obtained by rephotographing the negative rather than by printing with transmitted light. See also **repro stat**.

PHOTOTYPESETTER—Any of a number of complex machines which make a photographic print of type from a negative of that type. Capable of producing excellent results, the vagaries of the photographic process and the exceedingly high cost of materials is the greatest deterrent to their popularity.

PICA—12 points. The pica is the basic unit for lineal type measure. It is common practice to convert picas to inches on the basis of 6 picas or 72 points to the inch. However, a pica is .16625 of an inch, and 6 picas or 72 points would be .0025 short of an inch. The em, formerly used as a unit for newspaper column width, was a 12 pt. em equal to one pica.

PICA (TYPEWRITER)—The larger of the two most popular typewriter faces, there are 10 letters or 6 lines to the inch. See also **elite**.

*Not generic; a registered trade mark or proprietary brand name of the manufacturer.

PICK-UP—A ball of dried rubber cement used for cleaning particles of rubber cement from the surface of paste-ups, mechanicals, etc. It can be rubbed over fairly dry repro proofs without danger of smearing.

PIE—Also **pi**. A type form, usually hand set, which has come apart with the result that the type is in complete disorder. Also the act of causing such.

PLANOGRAPHIC—Any printing process where the printing and non-printing areas are on the same plane.

PLASTIC PLATE—A duplicate plate lighter and cheaper than an electro. Perfect dimensional stability with close register is claimed for those now offered, but earlier versions "cold flowed". Safe mounting and resistance to inks and cleaning chemicals remain the biggest obstacles to their wider use.

PLATE—Variously, an individual cut or a photoengraving, electrototype, or stereotype of a form or page. In rotary letterpress the curved electrototype or stereotype. In offset, the metal (or paper) sheet which is sensitized, burned-in and printed from. In intaglio, the incised cylinder. As a verb, to plate, the act of producing such plates from type forms and mechanicals preparatory to going to press.

PLATE CYLINDER—The printing cylinder to which the curved plate is attached or around which the offset plate is wrapped; as opposed to impression cylinder.

PLATEN—That part of a job press onto which the paper stock is fed and carried against the inked form.

PLATEN PRESS—See job press.

POINT SIZE—See under pica.

P.O.P.—Point-of-purchase display material such as shelf-talkers, streamers, banners, pennants, mobiles, counter, rack and animated displays.

POSTER—A term loosely applied to all large display signs on paper or cardboard usually for interior use and of a temporary nature.

PRESSURE SENSITIVE—Broadly, any of a recent group of adhesives which do not have to be moistened for use. They are generally rubber or silicone complexes with small amounts of a non-volatile solvent which enable them to remain tacky. The wax adhesives belong to this group.

PRINT-AND-FLOP—See print-and-tumble.

PRINT-AND-TUMBLE—To print the front and back of a sheet at the same time and on the same side of a sheet twice as large, then turning the stock over in the direction of the grippers and printing the other side so that two sets of fronts with backs are obtained. The same side guide is used, but different gripper margins. The stock is afterward cut apart. Advantage is to eliminate separate plates for front and back. See next below.

PRINT-AND-TURN—Same principle as print-and-tumble (see above) except that stock is turned over toward opposite side of press. The side guide changes, but the same gripper margin is used. Print-and-turn is generally considered easier to handle, and many forms can be printed either way. Determining factors are amount of gripper margin available and dimensions of finished pieces, since large sheets must be fed broadside to the grippers.

PROCESS COLORS—The colors used in process work are cyan, magenta and yellow (3-color) and black (4-color) and, except for the black, are transparent.

PRODUCTION—Production follows client's approval of an advertisement and involves the planning, scheduling and purchase of all services necessary to get the advertisement in reproducible form for the media used.

PROJECTOR—An opaque stereopticon with mirror arrangement for blowing up or reducing ad elements so they can be traced on layout or illustration board.

PROOF—An advance copy of a printing form submitted for approval or correction of composition and make-up.

PROOF PRESS—A simple flat bed and cylinder press used solely for pulling galley and repro proofs.

PROPORTIONAL SCALE—A large disc and a smaller disc mounted on a common center, both calibrated so that when a known height and width are aligned, the corresponding height and width for various enlargements and reductions are shown.

QUAD—A metal space not type-high, having the square of the type size used; also linear multiples thereof, as 2-em, 3-em, etc. See also em and en.

QUADDING—Filling out a line as required with quads and other spaces.

QUOIN—A device composed of two opposing wedges which are expanded or contracted with a quoin key. Used to tighten or lock a type form securely into a chase.

READ RIGHT—A printing plate, other than offset, reading from left to right and used for printing on the reverse or underside of decals and transparent wrappers.

REAM—Once variable, but today more or less standardized at 500 sheets.

REDUCING GLASS—The opposite of a magnifying glass. Used to judge how art work and other copy will look when reduced to printing size.

REGISTER—The putting and maintaining of all elements or parts of a printed piece into perfect horizontal and vertical alignment each in relation with the other. Register starts with the preparation of the original art work and follows through to the proper positioning of the printing plates and stock. Most critical in color work, faulty register is frequently caused by dimensional changes in paper stock between color runs.

REGISTER MARKS—Combinations of circles and crosslines placed on art work and stripped-up stencils, generally outside the printing area or later opaqued out. When the register marks exactly coincide, the multiple burns or colors are in perfect register.

REGLETS—Thin strips of hardwood used as shims in conjunction with furniture and as line-spacing material. Usually 6, 12 and 18 point.

RELIEF PRINTING—A confusing term sometimes applied to simulated steel die engraving produced by **thermography**, q.v.

REPROLITH*—Ansco brand of sensitive materials for photolithography.

REPRO PROOF—A final print from a type form after all corrections have been made, carefully lined-up, made-ready, and pulled on special stock for photographing.

REPRO STAT—A photostat made on glossy paper having higher contrast, finer grain, and better dimensional stability. Used on paste-ups and mechanicals for reproduction.

RESIST—The enamel or bichromated coating left on a relief or offset plate after burning-in and development, and which protects those areas from the action of the acid etch.

RETICULATION—The fracture of the surface of a gelatin emulsion into a fine network of lines, caused by changes in temperature between solutions. Done intentionally in **collo-types**, q.v.

RETOUCH—Art work performed on a photograph, mostly with an air brush, to correct and improve the photograph for reproduction.

REVERSE—White letters on a black background, or the corresponding effect obtained by printing with ink of any color on stock of contrasting color.

R.O.P.—Run-of-Press. Said of those colors besides black which a newspaper or other publication regularly offers.

ROSS BOARD—Also called **pebble board**. A board having an embossed screen or texture which when drawn upon with charcoal or other soft medium, produces dots of different size, depending upon the pressure used, giving halftone effects which can be reproduced as line work.

TYPE CATALOG **VARIGRAPH** and PRODUCTION HANDBOOK

ROTARY PRESS—Any press printing from a curved surface and wherein the stock passes between the impression and the plate or offset cylinders. See **web press**.

ROUND CORNERER—A foot press or paper drill equipped with a semicircular die for cutting round corners on cards and other stock.

RUBBER DIE—A molded rubber type form (not unlike a rubber stamp) for printing on textured stock; a wrap-around plate for printing in so-called dry offset. Also a hand-cut rubber plate for printing on corrugated box board.

RUN—The total number of printed impressions usually within ten percent of the quantity ordered.

RUNAROUND—Type lines of varying width to fit around an irregular shape or illustration.

SADDLE STITCH—Binding a booklet by stapling the folios together along the center fold.

SALT PRINT—See **vandyke**.

SCALING—Determining, usually with a proportional scale, the percentage (enlargement or) reduction required to bring a photograph or art work to desired size for reproduction. Another method is to draw a diagonal on tissue placed over the original; any rectangle on the same diagonal will be in proportion.

SCANNING ENGRAVER—A mechanical photoengraver with a photoelectric cell which scans a photo or other copy horizontally then vertically, simultaneously actuating a stylus which engraves halftone dots on a plastic (or sometimes, metal) plate.

SCORING—Cutting partially through heavier stock to facilitate folding. See **creasing**.

SCRATCH BOARD—A line drawing technique and the specially coated board used therefore. The light scale areas are handled normally, but the dark scale areas are filled in solid, the gradation in tones being afterward achieved by scratching lines of varying thickness through the blackened coating and revealing the white substratum.

SCREEN PRINT—A rarely used but effective method for producing and controlling drop-outs and solids in a halftone. A print enlargement is made from a halftone negative, the over-size dots being easy to work on with india ink or chinese white. Afterward, the print is re-shot to size as line art.

SECOND PRINT—A photostat made from and immediately following a first photostat from copy.

SELF-LIQUIDATING PREMIUM—Any premium where the person or firm offering the premium shares no part of the cost of that premium.

SELF MAILERS—Any mailing piece so designed that one of the outside folds or a cover provides room for addressing and mailing.

SENSITIVE MATERIALS—Any material which undergoes a chemical change when acted upon by actinic light. Specifically photographic films and papers, also printing-out papers, diazo, salt, vandyke, and blue prints, bichromated coatings, certain plastics, and by extension, selenium and cadmium sulphide cells.

SERMON TACKS—A fastener with a flat head from which project two prongs which are bent back (like a cotter pin) to bind loose leaf sheets together.

SHADING SHEETS—Transparent plastic, self-adhesive sheets on which are printed various screen and mosaic patterns, as well as tints of various colors, used as overlays. See article on **Masks, Overlays and Screens**.

SHELF-TALKER—A pressure sensitive paper or plastic strip bearing a sales message and pasted along the edge of the shelf below the merchandise.

SHOW-THROUGH—Effect caused by too heavy impression, poor make-ready, or penetration of inks, so that printing shows through from one side to the other.

SIDE STITCH—Binding along the back edge of a book, usually of more than one signature, by stapling through from front to back cover.

SIGNATURE—The company name and address in an advertisement; see **logotype**. Also, a sheet folded into 4, 8, 16 or 32 pages and collated with others so folded to form a book.

SILHOUETTE—A halftone where all background has been removed, leaving only the principal subject.

SILK SCREEN—A reproduction process in which heavy-bodied inks are squeezed through a stencil mounted on a fabric (formerly silk) or sometimes metal screen. Best suited for display work and short runs, the photographic stencil has made the process popular also for decals, printed circuits, etc.

SILVER PRINT—See **vandyke**.

SINGLE REVOLUTION—A now obsolete flat bed press distinguished by a large impression cylinder which printed a sheet at each revolution and delivered the sheet at the back of the press.

SKID—A pallet onto which sheets are delivered from the press; also for transporting paper stock.

SLIP SHEETING—Slipping a sheet of paper between each sheet as it comes from a press to prevent offset.

SLUG—A line of metal type cast from matrices in one piece; also a lead strip for spacing as between lines, usually six points.

SPACE—A term applied to advertisements appearing in newspapers, magazines, etc. Also the horizontal and vertical units on

SPACE BAND—A double wedge-like affair set between words on a Linotype or Intertype and self-adjusting to provide more or less space between words to fill out the line.

SPOT—A small, subordinate illustration, usually in line, for explanation or atmosphere. A thumbnail.

SPREAD—Loosely applied to any ambitious use of space, but properly a space advertisement occupying opposite pages, with or without gutter space included.

SQUEEZE—Caused by too heavy impression or too heavy inking, with the result that some of the ink is forced out from between the printing surface and the paper stock.

S.S.—An abbreviation for same size placed on art work or other material for reproduction to indicate that no enlargement or reduction is wanted.

STANDING FORM—A form which will be used again and therefore should not be broken up and distributed or remelted; from the fact the type is left standing, i.e., upright.

STEP AND REPEAT—An extreme precision printing frame capable of horizontal and vertical movement; it can be set to automatically burn-in a negative at exact and predetermined horizontal and vertical intervals over a sensitized plate, perfect register being maintained even when negatives and plates are changed.

STEREOTYPE—A flat or curved plate of type metal cast from a paper mat or mold. Also the act of pouring the molten metal into the mold.

STICKY-BACK—A double-faced pressure-sensitive adhesive material used to mount plastic and rubber and (sometimes) metal plates to blocks and cylinders; also a similar substance used to hold negatives to the focal plane of reproduction cameras not equipped with a vacuum back.

STORY BOARD—Virtually a layout consisting of a series of panels having the approximate proportions of a TV screen or motion picture frame and illustrating each sequence of a proposed film. A brief description of the action sometimes accompanies each frame.

STREAMERS—Paper signs, variously 4 x 18, 6 x 20, 8 x 30 sometimes spot-gummed, for sticking on walls, show windows, back bars, etc.

STRIPPING—Originally peeling the negative emulsion from one glass plate and placing it into position with others on a second glass plate, called a flat. Today, stripping more often involves cutting a film negative into separate elements and fastening these into position on goldenrod paper with pressure sensitive tape. A window is then cut out of the paper for the negative to show through. Negatives thus assembled are called a mask or stencil.

STRIPPING FILM—Line film, usually in rolls, having a paper backing from which it is separated after development and transferred to a glass plate or flat.

STRIPPING TABLE—A frosted-glass topped table having a diffused light source beneath, used in stripping-up and assembling negatives into a mask or stencil.

STUFFER—A printed piece which will fit one of the standard size envelopes (usually a 6¾) and enclosed with statements, bills, etc.

SUBSTANCE—See under basis.

SUBTRACTIVE PRIMARIES—Often erroneously referred to as red, yellow and blue. They are in fact cyan, (minus red), magenta (minus green) and yellow (minus blue) and are the colors used in most color reproduction processes. Also called the process colors. See article on **Color Theory and Practice**.

SURPRINTING—Burning or printing a line negative, usually of type, over a halftone or screened areas on a photoengraving or offset plate.

TAB—That part of a card or other printed piece so cut or attached as to extend above other filed material for indexing or identification.

THERMOGRAPHY—A method for obtaining a raised design simulating steel die engraving and achieved by printing with a tacky ink, rosin or similar powder being blown over the area and adhering only to the ink; infra red or other heat is then applied causing the rosin to fuse and swell.

3M* COLOR KEYS—Color proofing materials of Minnesota Mining and Manufacturing; see also under color proofs.

TINT—Generally a pastel colored or light grey panel obtained by screening one or more of the inks used in the job. Also pastels or greys printed separately from a solid block.

TINT BLOCK—Originally a wood, linoleum or metal-faced block for printing a panel in a second color, usually a pastel. Today, in offset, this is more often accomplished by "throwing in a screen".

TIP-ONS—Any separate swatch, chip, sample or other more or less flat object which is glued or fastened into position on space or other advertising.

TISSUE OVERLAY—A tissue sheet placed over a paste-up or mechanical to show which parts are to be in what colors. Also, a sheet placed over a photograph to show where to crop.

TISSUE PROOF—A semi-transparent proof of display and/or body copy which can be placed over the layout, paste-up or mechanical to see whether everything fits properly. Generally furnished with repro proofs, q.v.

TONE-LINE PROCESS—A process for rendering line art by photographic means from a continuous tone subject. It consists of making a continuous tone negative and diapositive of equal density which are then bound together in register. The two cancel out each other except at the boundaries between sharply contrasting tones, where enough light leaks through to print on line material.

TRADE MARK—Formerly a distinctive symbol or insignia, often incorporating a motto and sometimes the trade or brand name itself. Now, more often the trade or brand name alone and in any form. Interstate use is one of the requirements for registration, but all such marks and names are automatically protected by Fair Trade and common law. All trade names should identify the source rather than describing the product, else they may become generic and fall into the public domain.

TRADE NAME—See trade mark above.

TRAPPING—Thickening by optical or manual manipulation the lines of demarcation between two or more colors so that they slightly overlap. See **keyline**.

TWENTY-FOUR SHEET—A billboard having a printed area of approximately 104" x 234", and formerly composed of 24 individual sheets.

TWO-REVOLUTION—A flat bed press in which the impression cylinder makes two complete revolutions for each sheet printed; the second, to deliver the sheet to the front of the press.

TYMPAN—A special hard-surfaced paper covering the platen or impression cylinder of a printing press.

TYPE GAUGE—A printers' rule usually 12 inches long and calibrated on one side in 6 pt., and picas, with a slight projection at zero for measuring the width of a line of type.

TYPE-HIGH—The height or thickness from bed to printing surface of a relief plate or form; 0.918 of an inch.

TYPESCRIPT—Copy produced on a typewriter or similar device.

UNDERCUT—In photoengraving, where the acid has been allowed to etch under the printing area thus undermining it.

VANDYKE—Like silver print, salt print, etc., a term broadly applied to proofs from offset negatives contact-printed on developing-out papers. Most often brown in color, these papers are developed by washing in water and fixed in hypo.

VARIGRAPH*—A non-photographic headline machine which produces repro-quality headlines directly on any stock including paper offset plates. Besides the simplicity and negligible operating cost, a unique feature of the Varigraph is that hundreds of different type sizes in condensed, normal and extended faces can be obtained from one single font of type.

VELOX*—A contact printing paper of Eastman Kodak manufacture having a glossy surface and good contrast. Its exceedingly white base makes it especially suitable for reproduction purposes.

VERTICAL CAMERA—A fairly recent trend where the copy board is parallel to and near the floor while the film back is slightly above waist-high. Enlargement and reduction are naturally limited, but floor space is saved.

VERTICAL PRESS—An automatic cylinder jobber where the bed or type form is in a vertical position and travels up and down reciprocally with the impression cylinder.

VIGNETTE—Generally used in connection with a photograph but applied to any screened area where a dark center gradually lightens toward its edges and finally disappears. To be avoided in letterpress printing.

VISUAL—A finished layout but with emphasis on art work and treatment, to scale but not necessarily to size.

WASH-OFF RELIEF—A variation of the dye-transfer process, q.v.

WASH-UP—Washing the ink fountain and rollers of a printing press at any time but especially between runs of different colors.

WEB PERFECTING—Said of a printing press which prints on both sides of a web or roll in one operation.

WEB PRESS—Usually a rotary, but any printing press which feeds from a web or continuous roll of paper stock; as distinct from a sheet-fed press.

WIDOW—The last line in a paragraph, but more particularly one that is objectionably short.

WINDOW—The transparent opening in a line negative where a halftone will later be stripped-in. Also the corresponding mask or black area on the paste-up or mechanical from which the line negative was made.

WORK-AND-TURN—See print and turn.

XEROGRAPHY—A fairly recent positive-to-positive process developed by the Xerox Corporation and utilizing a light-sensitive, selenium-coated plate which carries a positive electrostatic charge. Where exposed to light, the charge is dissipated, leaving a latent image to which negatively charged black powder will adhere. The powder image can afterward be transferred and fused to other positively charged surfaces such as both unsensitized paper and metal offset plates. It is a dry process.

ZINC PLATE—A photoengraving made on zinc for letterpress use; due to the molecular structure of the metal, it is suitable only for line cuts and coarse screen halftones.

*Not generic; a registered trade mark or proprietary brand name of the manufacturer.

This Lamp Looks just like a LUXO -and it's just as good as a LUXO!



Seems like nearly everyone prefers the LUXO. Even other folks who make lamps! Imitations of the LUXO are so good looking, they'd fool most anybody. Until you get nosy.

How to tell the real thing from the spurious? **Look at the Neck**—Here's one thing they can't copy; it's patented by LUXO.

Has universal brake shoe . . . easily assumes any desired position and holds it. Safety stop protects wiring.

Look at the Bearings—Better still, feel the difference LUXO custom tailored bearings make. Smooth as syrup!

Look at the Springs—LUXO springs are cadmium plated as befits purest spring steel.

Look at the Shade—No beer-can engineering here! The LUXO shade is made of spun aluminum with rolled lip.

Look at the Struts—LUXO struts are steel extrusions . . . harder for us, better for you . . . no seams to split and spread.

And Finally—LUXO switches, bearings and ballast (the parts that wear out soonest on other lamps) are of such matchless quality they are unconditionally guaranteed for the life of your LUXO!

Fluorescent light illuminates only the blue end of the spectrum. Incandescent gives you only the red. To see things in their true colors, you need **both**—incandescent **and** fluorescent—the Balanced Spectrum of the LUXO Combo pictured here.

And the LUXO Balanced Spectrum is every bit as important even if you only work in black and white. Because white is a combination of all the colors. Most light sources illuminate only some of the colors in the white paper you work on . . . overwork that part of your color perceptrs . . . don't use the others. Result is eye-strain, headaches, fatigue. Things blur. Your work suffers. But LUXO Balanced Spectrum distributes the work-load evenly over all six of your color perceptrs. Lightens your work. Brightens your workday.

ORDER TODAY!

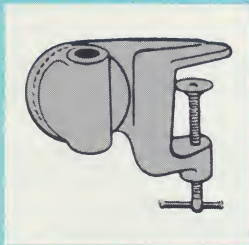
LUXO Combo, less Bracket\$27.25 prepaid

COLORS: ☐ Dove Gray, ☐ Desert Tan, ☐ Mist Green

BRACKET (See listing at left for prices and correct Bracket.)

CIRCLINE Fluorescent Tube \$3.50

IMPORTANT—Get the Right Bracket!



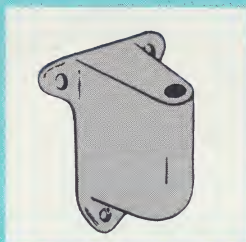
FOR SLANT TOP TABLE
You will need Bracket No. 1, above. Clamps to rear of table top; adjusts to any slant. List price: \$3.50



FLAT TABLE OR DESK
Bracket No. 2, above, clamps to rear of table or desk top; cannot be adjusted for slant. List price: \$2.25



NO ROOM FOR CLAMP
Bracket No. 3, shown, attaches underneath, curves up and over to clear top. Adjustable. List price: \$3.50



MOUNTS ON WALL
Bracket No. 4, above, keeps table top or desk clear; needs no adjustment for slant. List price: \$2.25

Prices and Specifications Subject to Change without Notice.

AT LAST!

a magnifier that really magnifies!

It may at first seem odd to boast that a magnifier really magnifies. But those who have looked high and low for one that does, will know it's something to brag about.

We're not speaking of linen testers, now, but a big 5 inch diameter lens that covers a comfortable, uncramped working area. Accurate perspective is assured, because it enables you to see with both eyes.

The powerful 5 diopter lens has a flat, uniform field, highly corrected for peripheral distortion. Thus eye-strain and nerve fatigue are minimized because your hand can believe what your eyes see.

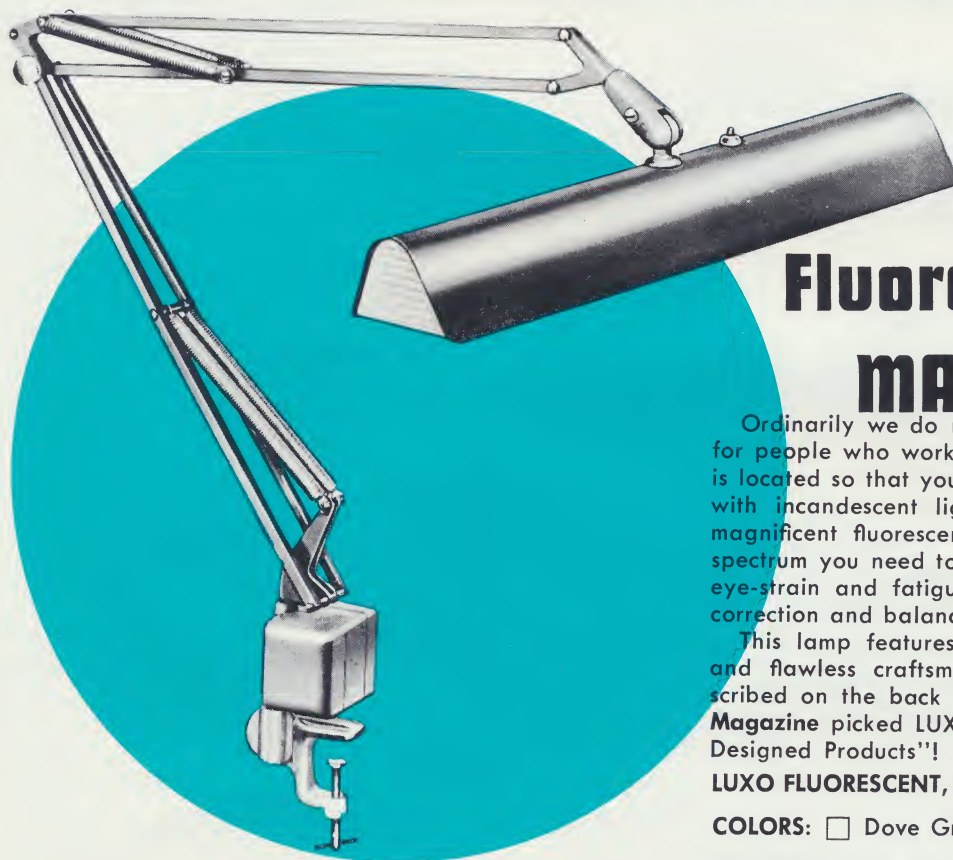
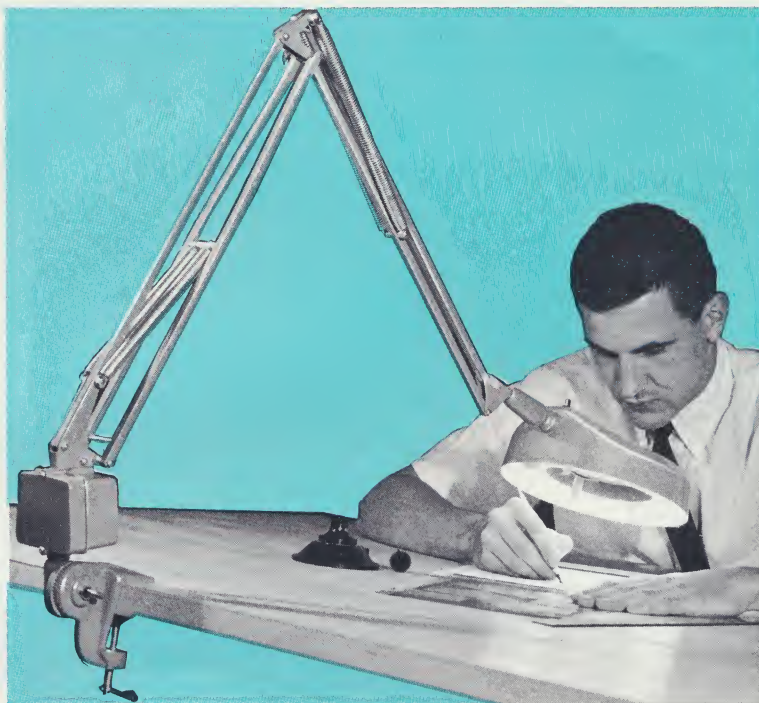
In addition to all this, the MAGNALUME spotlights your work with a brilliant, non-glaring and utterly shadowless light.

ORDER TODAY! Be sure to specify type of bracket needed. Shipped prepaid.

MAGNALUME less bracket (Dove Gray) \$42.25

BRACKET (See left columns on preceding page)

CIRCLINE Fluorescent Tube\$3.50



and a Fluorescent that's MAGNIFICENT

Ordinarily we do not recommend a fluorescent lamp for people who work with their eyes. But if your table is located so that your work area is brightly illuminated with incandescent light from other sources, then this magnificent fluorescent will give you the rest of the spectrum you need to see by. Not only will this relieve eye-strain and fatigue, but it will assure proper color correction and balance.

This lamp features the same widely-imitated design and flawless craftsmanship as the LUXO Combo described on the back of this page. No wonder **Fortune Magazine** picked LUXO lamps as one of the "100 Best Designed Products"!

LUXO FLUORESCENT, less bracket\$27.25

COLORS: ☐ Dove Gray, ☐ Desert Tan, ☐ Mist Green

BRACKET (See left columns on preceding page)

2 FLUORESCENT Tubes pair \$ 2.20

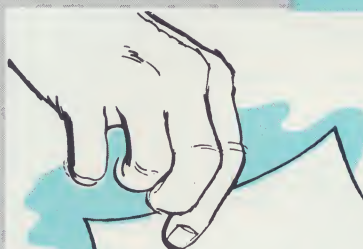
Prices and Specifications Subject to Change without Notice.

LUMA WATER COLORS

Luma Concentrated Water Colors exhibit brilliant aniline dyes in a free-flowing, non-feathering aqueous vehicle that dries flat. Containing no opaque pigments, they are completely transparent and perform well in VARIGRAPH Capillary Pens, as also with brushes and air brushes. They may be diluted with water to obtain lesser degrees of saturation, or freely mixed with each other to secure an infinite variety of hues. May be used wherever a transparent color is indicated, as for washes, even over india ink, and for coloring photographs. Color card sent on request.

- | | | |
|---------------------|---------------------|-------------------|
| 1. Lemon Yellow | 5. Moss Rose | 10. Juniper Green |
| 2. Orange | 6. Turquoise | 11. Saddle Brown |
| 3. Persimmon | 7. True Blue | 12. Black |
| 4. Scarlet | 8. Violet | |
| 13. Daffodil Yellow | 9. Grass Green | |
| 14. Amber Yellow | 26. Olive Green | |
| 15. Tangerine | 27. Cherry Red | |
| 16. Crimson | 28. Alpine Rose | |
| 17. Wild Rose | 29. Tapestry Yellow | |
| 18. Cyclamen | 30. Pumpkin Orange | |
| 19. Slate Blue | 31. Burnt Orange | |
| 20. Ultra Blue | 32. Hyacinth Blue | |
| 21. Golden Brown | 33. Norway Blue | |
| 22. Mahogany | 34. Chartreuse | |
| 23. Sepia | 35. Jungle Green | |
| 24. Moss Green | 36. Tobacco Brown | |
| 25. April Green | | |

1/2 oz. Eye-dropper bottles	\$.60
Complete Set of 36	\$19.80
Small Set (1-12)	\$ 6.60
2 oz. Eye-dropper bottles	\$ 1.20
Complete Set of 36	\$39.60
Bleed-Proof White, 1 oz.	\$.85
Pro-Black, 1 oz.	\$.85



STRATHMORE PAPER

A photographically white, hot pressed paper especially for VARIGRAPH composition and reproduction purposes. Its high plate finish yields exceptionally sharp, clean lines without any trace of feathering.

11 1/2" x 14 1/2"	1 ply	25 sheets	No. PK2	\$1.95
11 1/2" x 14 1/2"	2 ply	25 sheets	No. PK4	\$3.95
14 1/2" x 23"	1 ply	20 sheets	No. PK3	\$2.95
14 1/2" x 23"	2 ply	20 sheets	No. PK6	\$5.95

PELIKAN INKS

FOR PLASTIC SURFACES AND OVERLAYS

Adheres perfectly to commonly used plastic surfaces, as well as to waterproof tracing cloth, coated and hot pressed papers. Flows easily. Waterproof when dry. Available in red, yellow, blue, green and black (specify which).

1 oz. (No. T for colors; No. TN for black) \$.65 ea.

PLASTIC ETCHING INK

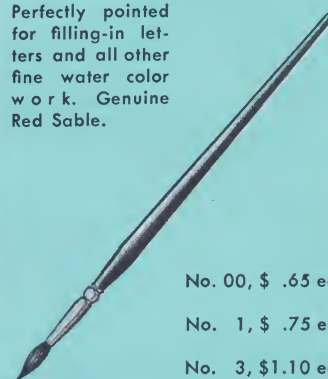
In black only. Similar to above, but etches into the surface. For sheets 5 mil and thicker, either matte or clear. Spirit, benzine and waterproof when dry.

1 oz. No. K \$1.10 ea.

1 oz. Thinner for above No. VKS .. \$.75 ea.

DURO ART BRUSHES

Perfectly pointed for filling-in letters and all other fine water color work. Genuine Red Sable.



No. 00, \$.65 ea.

No. 1, \$.75 ea.

No. 3, \$1.10 ea.

COMBINATION CASE

Provides an easily portable and orderly rack for up to 21 mats, with special compartments for your VARIGRAPH and Pen Tank (see page 9) and room for other supplies. Dust proof. Sturdily constructed and handsomely finished in tough, simulated leather. No. CT27 \$29.50



VARIGRAPH CASE



Shock-proof, dust proof repository for your VARIGRAPH when not in use.
No. VC95 .. \$9.50

Prices and Specifications Subject to Change without Notice.

BOARDS, T-SQUARES, T-LOCKS

DRAFTING BOARDS — Professional quality of $\frac{3}{4}$ " kiln dried basswood. The 18" x 24" board and 24" Boardlock T-Square are standard equipment with the Complete VARIGRAPH Office Outfit (see page 3). Prices below include channel for Boardlock T-Square.

18" x 24"	No. DB24	\$ 8.95
23" x 31"	No. DB31	\$11.95
24" x 36"	No. DB36	\$12.95



VARIGRAPH T-LOCK — Fastens to and holds free end of blade in firm alignment. Indispensable when setting long headlines.

No. TL29 \$2.95

BOARDLOCK T-SQUARE — Approximately $2\frac{1}{2}$ " wide, of stainless steel with transparent plastic edges. Action of hand lever wedges T-square head in channel.

24" Blade	No. TS24	\$ 8.95
30" Blade	No. TS30	\$ 9.95
36" Blade	No. TS36	\$10.95

ALUMINUM CHANNEL — Attach it yourself to your present board. Specify length. No. CH15 \$.15 per inch.



LAYOUT PENCIL ATTACHMENT

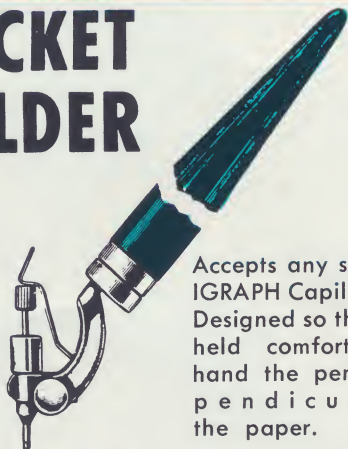
Enables you to quickly pencil-in on layouts with your VARIGRAPH the same heads you plan to use for finished art. Also invaluable for setting trial heads directly on art work and mechanicals when spacing and positioning are critical. Uses standard black and colored leads.

No. PA 45 \$4.50

NON-PHOTOGRAPHIC

NON-PHOTOGRAPHIC

SOCKET HOLDER



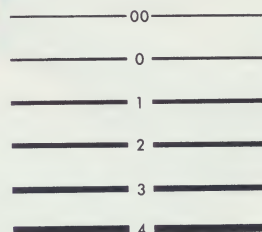
Accepts any size VARIGRAPH Capillary Pen. Designed so that when held comfortably in hand the pen is perpendicular to the paper. \$1.75

RAPIDOGRAPH PEN

Ideal for filling-in, ruling, etc. Available in 6 widths shown. No. 1 supplied unless otherwise specified.

No. RP49 \$4.95

Replacement Points \$2.00



JKQGBCFMHIINATESORDULYPW

Type Faces and Prices by Mat Number

MAT No.	PAGE	PRICE	MAT No.	PAGE	PRICE	MAT No.	PAGE	PRICE	MAT No.	PAGE	PRICE
STANDPOINT			GARAMOND BOLD			BANNER MEDIUM			STANDARD EUROPEAN		
2U (19-96)	18	\$16.00	38U (14-72)	23	\$17.00	645U (14-72)	34A	\$17.00	90U (19-96)	15	\$19.00
2U (14-72)	18	14.00	38L (14-72)	23	15.00	645L (14-72)	34A	15.00	90U (14-73)	15	17.00
2L (14-72)	18	12.00	STENCIL			DAWN CURSIVE			90L (14-72)	15	15.00
2UL (7-36)	18	16.00	39U (15-76)	26	19.00	655U (14-72)	30	17.00	FUTURA BOLD		
2UL (5-24)	18	16.00	BERNHARD MODERN BOLD			655L (14-72)	30	15.00	91U (19-96)	12	19.00
STANDPOINT ITALIC			385U (14-72)	23	17.00	CARDIGAN CURSIVE			91U (14-72)	12	17.00
2SU (14-72)	18	14.00	385L (14-72)	23	15.00	665U (14-72)	30	17.00	91L (14-72)	12	15.00
2SL (14-72)	18	12.00	CHAPEL			665L (14-72)	30	15.00	91FU (14-72)	12	24.50
2SUL (7-36)	18	16.00	4U (14-72)	31	19.00	PRIMROSE			91FL (14-72)	12	21.50
STANDPOINT CONDENSED			4L (14-72)	31	16.00	685U (14-72)	30	17.00	FUTURA BOLD CONDENSED		
21U (19-96)	18	16.00	OLD ENGLISH			685L (14-72)	30	15.00	91CU (19-96)	12	19.00
MICROGRAMMA NORMAL			41U (14-72)	32	19.00	UMBRA			91CU (14-72)	12	17.00
22U (14-72)	19	14.00	41L (14-72)	32	16.00	7U (17-84)	17	19.00	91CL (14-72)	12	15.00
22U (7-36)	19	14.00	INTERLOCK			ORPLID			FUTURA BOLD ITALIC		
22U (5-24)	19	14.00	42U (14-72)	28	19.00	71U (19-96)	18	17.00	91SU (19-96)	12	19.00
VOGUE LIGHT			EX LIBRIS			PULLMAN GOTHIC			91SU (14-72)	12	17.00
23UL (7-36)	11	16.00	43U (14-72)	15	17.00	72U (14-72)	17	17.00	91SL (14-72)	12	15.00
BIRDIE LIGHT CONDENSED ITALIC			43L (14-72)	15	15.00	FUTURA DISPLAY			FUTURA ULTRABOLD		
24SUL (7-36)	19	16.00	LEGAL SCRIPT			73U (14-72)	13	17.00	92U (14-72)	13	17.00
STYMIE LIGHT			52U (14-72)	31	19.00	73L (14-72)	13	15.00	92FU (14-72)	13	24.50
25U (14-72)	19	16.00	52L (14-72)	31	16.00	HEBREW-YIDDISH ALPHABET			92FL (14-72)	13	21.50
25L (14-72)	19	14.00	KAUFMAN SCRIPT			74U (14-72)	32	20.00	FUTURA ULTRABOLD CONDENSED		
25UL (7-36)	19	16.00	53U (14-72)	29	15.00	FREEWAY BOLD CONDENSED			92CU (19-96)	13	19.00
GREEK ALPHABET			53L (14-72)	29	13.00	75U (14-72)	17	17.00	92CU (14-72)	13	17.00
25GU (14-72)	32	17.00	COMMERCIAL SCRIPT			75L (14-72)	17	15.00	92CL (14-72)	13	15.00
25GL (14-72)	32	15.00	54U (14-72)	31	19.00	FREEWAY			FUTURA ULTRABOLD COND. ITALIC		
NEWS GOTHIC			54L (14-72)	31	16.00	76U (14-72)	16	17.00	92CSU (19-96)	13	19.00
26U (19-96)	16	16.00	VIEWPOINT			FREEWAY EXTENDED			92CSU (14-72)	13	17.00
26U (14-72)	16	14.00	55U (14-72)	31	17.00	77U (14-72)	16	17.00	92CSL (14-72)	13	15.00
26L (14-72)	16	12.00	55L (14-72)	31	15.00	FREEWAY CONDENSED			FUTURA MEDIUM		
26UL (7-36)	16	16.00	BALLPOINT SCRIPT			78U (14-72)	16	17.00	93U (19-96)	11	19.00
26UL (5-24)	16	16.00	56U (14-72)	29	17.00	FREEWAY EXTRA CONDENSED			93U (14-72)	11	17.00
SHOPPING CENTER 1			56L (14-72)	29	15.00	79U (14-72)	17	17.00	93L (14-72)	11	15.00
27U (7-96)	32	17.00	IMAGINATION			STYMIE MEDIUM			93FU (14-72)	11	24.50
CRAW CLARENDON			57U (14-72)	28	17.00	8U (14-72)	20	17.00	93FL (14-72)	11	21.50
28U (14-72)	24	17.00	57L (14-72)	28	15.00	8L (14-72)	20	15.00	FUTURA MEDIUM ITALIC		
28L (14-72)	24	15.00	FASCINATION			STYMIE EXTRA BOLD			93SU (19-96)	11	19.00
CRAW MODERN BOLD			58U (14-72)	29	17.00	81U (19-96)	20	19.00	93SU (14-72)	11	17.00
29U (14-72)	24	17.00	58L (14-72)	29	15.00	81L (14-72)	20	15.00	93SL (14-72)	11	15.00
29L (14-72)	24	15.00	KAUFMAN BOLD			81U (14-72)	20	17.00	MONORAIL		
COAST SURVEY			6U (14-72)	29	17.00	81L (14-72)	20	15.00	94U (19-96)	15	19.00
3U (14-72)	23	17.00	6L (14-72)	29	15.00	81FU (14-72)	20	24.50	94U (14-72)	15	17.00
3L (14-72)	23	15.00	LYDIAN			81FL (14-72)	20	21.50	94L (14-72)	15	15.00
3FU (14-72)	23	24.50	61U (14-72)	25	17.00	STYMIE EXTRA BOLD ITALIC			VENUS EXTRA BOLD EXTENDED		
3UL (7-36)	23	19.00	61L (14-72)	25	15.00	81SU (14-72)	21	17.00	95U (14-72)	14	17.00
COAST SURVEY ITALIC			BRUSH			81SL (14-72)	21	15.00	95L (14-72)	14	15.00
3SU (14-72)	23	17.00	62U (14-72)	28	17.00	STYMIE BOLD			FRANKLIN GOTHIC EXTRA COND.		
3SL (14-72)	23	15.00	62L (14-72)	28	15.00	82U (14-72)	20	17.00	96U (19-96)	14	19.00
3SUL (7-36)	23	19.00	BALLOON EXTRA BOLD			82L (14-72)	20	15.00	96U (14-72)	14	17.00
CRAW MODERN			63U (14-72)	27	17.00	82FU (14-72)	20	24.50	96L (14-72)	14	15.00
30U (14-72)	24	17.00	63L (14-72)	27	15.00	82FL (14-72)	20	21.50	VENUS BOLD EXTENDED		
30L (14-72)	24	15.00	63FU (14-72)	27	24.50	PLAYBILL			99U (14-72)	14	17.00
FACADE			63FL (14-72)	27	21.50	83U (16-82)	21	19.00	99L (14-72)	14	15.00
31U (19-96)	26	19.00	DOM BOLD			STYMIE BOLD CONDENSED			EUROSTYLE EXTRABOLD		
WIDE LATIN			64U (14-72)	27	17.00	84U (14-72)	20	17.00	951U (14-72)	34A	17.00
32U (12-60)	25	17.00	64L (14-72)	27	15.00	84L (14-72)	20	15.00	951L (14-72)	34A	15.00
32L (12-60)	25	15.00	DOM CASUAL			COPPERPLATE DEMIBOLD			FRANKLIN GOTHIC CONDENSED		
BODONI BOLD			65U (14-72)	27	17.00	85U (14-72)	19	17.00	965U (19-96)	14	19.00
34U (14-72)	21	17.00	65L (14-72)	27	15.00	GOUDY BLACKFACE			965U (14-72)	14	17.00
34L (14-72)	21	15.00	65FU (14-72)	27	24.50	86U (14-72)	24	17.00	965L (14-72)	14	15.00
34FU (14-72)	21	24.50	65FL (14-72)	27	21.50	86L (14-72)	24	15.00	965FU (14-72)	14	24.50
34FL (14-72)	21	21.50	LYDIAN CURSIVE			SHOPPING CENTER			965FL (14-72)	14	21.50
BODONI BOLD ITALIC			66U (14-72)	26	17.00	88U (7-96)	33	17.00	ALTERNATE GOTHIC		
34SU (14-72)	21	17.00	66L (14-72)	26	15.00	89U (7-96)	33	17.00	975U (19-96)	15	19.00
34SL (14-72)	21	15.00	PRISCILLA			FUTURA DEMIBOLD			975U (14-72)	15	17.00
ULTRA BODONI			67U (14-72)	28	17.00	9U (19-96)	11	19.00	975L (14-72)	15	15.00
35U (14-72)	22	17.00	67L (14-72)	28	15.00	9FU (19-96)	11	27.50	975FU (14-72)	15	24.50
35L (14-72)	22	15.00	ADMIRATION			9U (14-72)	11	17.00	975FL (14-72)	15	21.50
ULTRA BODONI ITALIC			68U (14-72)	30	17.00	9L (14-72)	11	15.00	975UL (9-48)	15	19.00
35SU (14-72)	22	17.00	68L (14-72)	30	15.00	9FU (14-72)	11	24.50	SHOPPING CENTER 2		
35SL (14-72)	22	15.00	CORONET BOLD			9FL (14-72)	11	21.50	98U (7-96)	33	17.00
NEW CASLON			69U (14-72)	26	17.00	9UL (7-36)	11	17.00	A-1 ARROWS	34	17.00
36U (14-72)	22	17.00	69L (14-72)	26	15.00	FUTURA DEMIBOLD ITALIC			FR-1 FRACTIONS	33	16.00
36L (14-72)	22	15.00	LYDIAN BOLD CONDENSED			9SU (19-96)	12	19.00	GR-1 GRAPHICS	34	17.00
NEW CASLON ITALIC			615U (14-72)	25	17.00	9SU (14-72)	12	17.00	HMP2 HIWAY MAP	34	14.00
36SU (14-72)	22	17.00	615L (14-72)	25	15.00	9SL (14-72)	12	15.00	MA-1 MATH	34	14.00
36SL (14-72)	22	15.00	STREAMER BOLD			9SUL (7-36)	12	17.00	MP-1 MAPPING	34	14.00
CHARM			635U (14-72)	27	17.00				MU-1 MUSIC	34	18.00
37U (14-72)	25	17.00	635L (14-72)	27	15.00				E-2 ELECTRONICS	34A	18.00
37L (14-72)	25	15.00							E-3	34A	18.00

INDEX

by Subjects

	PAGE
All from One Alphabet	2
Block Method of Copy Fitting, The	13
Camera Modification Effects	2
Circles and Curves	2
Collotype or Gelatin Printing	33
Color Theory and Practice	21
Composing Table, The	6
Copy Fitting	13
Curve Attachment	8
"Dry Offset" or Offset Relief	29
Glossary of Terms	35
Halftone Process, The	19
Handletters, The	10
Headwriter, The	3
How Does the Varigraph Work?	4 & 5
How to Set Varigraph Headlines the Size You Want	10
How to Write Effective Copy	11
Hundreds of Sizes	2
Introduction	1
Masks, Overlays and Screens	15
Matrix Information	8
Miscellanea, The	10
Monolines, The	9
Monolines with Serifs, The	9
Non-Photographic	3
Offset Printing	25
Offset Relief	29
Outlines and Reverses	2
Paper Weights, Grades, Sizes	23
Relief or Letterpress Printing	27
Silk Screen and Stencil Processes	31
Steps and Shadows	2 & 6
Thick and Thins, The	10
Thick and Thins with Serifs, The	10
Two Functions of Type, The	9
Typesetting Machines	17
Type Talk	9
Varigraph Headwriter	3

INDEX OF TYPE FACES

Matrices for the following Type Faces, together with their prices, are listed numerically by Mat Numbers on the preceding page.

Type Face	Mat Series	Cat. Page	Type Face	Mat Series	Cat. Page
AD LIB — See under Ex Libris			FREEWAY	76	16
ADMIRATION	68	30	FREEWAY BOLD CONDENSED	75	17
AIRPORT — See under Futura			FREEWAY CONDENSED	78	16
ALTERNATE GOTHIC	975	15	FREEWAY EXTENDED	77	16
ARROWS	A-1	34	FREEWAY EXTRA CONDENSED	79	17
BALLOON EXTRA BOLD	63	27	FUTURA BOLD	91	12
BALPOINT SCRIPT	56	29	FUTURA BOLD CONDENSED	91C	12
BANK SCRIPT — See commercial Script			FUTURA BOLD ITALIC	91S	12
BARNUM — See Playbill			FUTURA DEMIBOLD	9	11
BERNHARD MODERN BOLD	385	23	FUTURA DEMIBOLD ITALIC	95	12
BETON — See under Stymie			FUTURA DISPLAY	73	13
BIRDIE LIGHT COND. ITALIC	245	19	FUTURA MEDIUM	93	11
BODONI BOLD	34	21	FUTURA MEDIUM ITALIC	93S	11
BODONI BOLD ITALIC	345	21	FUTURA ULTRABOLD	92	13
BODONI ULTRABOLD — See under Ultra Bodoni			FUTURA ULTRABOLD COND.	92C	13
BRUSH	62	28	FUTURA ULTRABOLD CONDENSED ITALIC	92CS	13
CAMPANILE — See Bodoni			GARAMOND BOLD	38	23
CARDIGAN CURSIVE	665	30	GILLIES GOTHIC — See Kaufman Bold		
CASLON — See under New Caslon			GIRDER — See under Stymie		
CHAPEL	4	31	GOUDY BLACKFACE	86	24
CHARM	37	25	GRAPHICS	GR-1	34
CLARENDON — See under Crow Clarendon			GREEK ALPHABET	25G	32
CLOISTER BLACK — See Old English			HEBREW-YIDDISH ALPHABET	74	32
COAST SURVEY	3	23	HIGHWAY MAPPING	HMP-2	34
COAST SURVEY ITALIC	35	23	IMAGINATION	57	28
COMMERCIAL SCRIPT	54	31	INTERLOCK	42	28
COPPERPLATE DEMIBOLD	85	19	KABEL — See under Futura		
CORONET BOLD	69	26	KAUFMAN BOLD	6	29
CORVINUS — See under Charm			KAUFMAN SCRIPT	53	29
CRAW CLARENDON	28	24	LEGAL SCRIPT	52	31
CRAW MODERN	30	24	LYDIAN	61	25
CRAW MODERN BOLD	29	24	LYDIAN BOLD CONDENSED	615	25
DAWN CURSIVE	655	30	LYDIAN CURSIVE	66	26
DOM BOLD	64	27	MAPPING SYMBOLS	MP-1	34
DOM CASUAL	65	27	MATHEMATICAL SYMBOLS	MA-1	34
EX LIBRIS	43	15	MEMPHIS — See under Stymie		
FASCINATION	58	29	METRO — See under Futura		
FACADE	31	26	MICROGRAMMA NORMAL	22	19
FORTUNE — See under Crow Clarendon			MONORAIL	94	15
FRACTIONS	FR-1	33	MUSIC SYMBOLS	MU-1	34
FRANKLIN GOTHIC COND.	965	14	NEW CASLON	36	22
FRANKLIN GOTHIC EXTRA CONDENSED	96	14	NEW CASLON ITALIC	36S	22
			NEWS GOTHIC	26	16
			OLD ENGLISH	41	32
			ORPLID	71	18
			PLAYBILL	83	21
			PRIMROSE	685	30
			PRISCILLA	67	28
			PULLMAN GOTHIC	72	17
			SANS SERIF — See under Futura		
			SHOPPING CENTER 1	27	32
			SHOPPING CENTER 2	98	33
			SHOPPING CENTER 3	88	33
			SHOPPING CENTER 4	89	33
			SPARTAN — See under Futura		
			STANDARD EUROPEAN	90	15
			STANDPOINT	2	18
			STANDPOINT CONDENSED	21	18
			STANDPOINT ITALIC	25	18
			STENCIL	39	26
			STREAMER BOLD	635	27
			STYMIE BOLD	82	20
			STYMIE BOLD CONDENSED	84	20
			STYMIE EXTRA BOLD	81	20
			STYMIE EXTRA BOLD ITALIC	81S	21
			STYMIE LIGHT	25	19
			STYMIE MEDIUM	8	20
			TEMPO — See under Futura		
			TWENTIETH CENTURY — See under Futura		
			ULTRA BODONI	35	22
			ULTRA BODONI ITALIC	35S	22
			UMBRA	7	17
			VENUS BOLD EXTENDED	99	14
			VENUS EXTRA BOLD EXTENDED	95	14
			VIEWPOINT	55	31
			VOGUE LIGHT	23	11
			WEDDING TEXT — See under Old English		
			WIDE LATIN	32	25
			YIDDISH — See under Hebrew		

PRODUCT INDEX

PRODUCT	PAGE	PRODUCT	PAGE
Acetate Inks	45	Luxo Lamps	43 & 44
Boardlock T-Squares	46	Magnalume	44
Brackets, Lamp	43	Magnifying Lamp	44
Brushes	45	Matrix Case	45
Capillary Pens	9	Office Outfit	3
Channel, Aluminum	46	Paper Plates	8
Cleaning Pins, Pen	9	Pelikan Inks	45
Colitho Direct Image Plates	8	Pen Cleaning Fluid	9
Colitho Hi-Speed Etch Solution	8	Pen Holder	46
Combination Case	45	Pen Sets	7 & 9
Combination Lamps	43	Pen Tank	9
Complete Varigraph Office Outfit	3	Pencil Attachment	46
Complete Varigraph Production Outfit	7	Production Pen	7
Composing Table	6	Production Outfit	7
Curve Attachment	8	Rapidograph Pens	46
Di-Rect Plate Ink	8	Reservoir Pens	7
Direct Image Paper Plates	8	Socket Holder	46
Drafting Boards	46	Strathmore Paper	45
Drawing Boards	46	T-Lock	46
Drawing Paper	45	T-Squares	46
Duro Art Brushes	45	Varigraph Capillary Pens	9
Fill-in Stylus	8	Varigraph Case	45
Fluorescent Lamps	44	Varigraph Headwriter	3 & 7
Headwriter	3 & 7	Varigraph Ink	9
Layout Pencil Attachment	46	Varigraph Production Pen	7
Luma Water Colors	45	Water Colors	45

THOUSANDS IN USE BY AMERICA'S LEADING FIRMS

ACF Electronics Industries, Inc., New York, N. Y.
Abbott Laboratories, North Chicago, Ill.
Aero-Jet General (2 units)*
Aetna Insurance Co., Hartford, Conn.
Allegheny Ludlum Steel Corp., (3 units)*
All Steel Equipment, Aurora, Ill.
Aluminum Co. of America (7 units)*
American Brass Co., Waterbury, Conn.
American Broadcasting Co., New York, N. Y. (3 units)
American Can Co., New York, N. Y.
American Cancer Society Inc., New York, N. Y.
American Car Foundry Industries, Riverdale, Maryland
American Dairy Association, Chicago, Ill.
American Heart Assoc., Inc., New York, N. Y.
American Machine & Foundry Co., Brooklyn, N. Y.
American Medical Association, Chicago, Ill.
American Steel & Wire Co., Cleveland (4 units)
American Telephone & Telegraph Co., New York
N. Y. (3 units)
American Viscose Corp., Fredericksburg, Va.
Anaconda Copper Mining Co., New York, N. Y.
Anheuser-Busch, Inc., St. Louis, Mo.
Argonne National Laboratory, Lemont, Ill. (2 units)
Armour & Co. Research Div., Chicago, Ill.
Armstrong Furnace Co., Columbus, Ohio
Asiatic Petroleum Corp., New York, N. Y.
Atlantic Refining Co., Philadelphia, Pa.
Avco Manufacturing Corp., Cincinnati, Ohio (2 units)
Avery Adhesive Label Corp., Monrovia, Calif.
Avon Products, Inc., Morton Grove, Ill.

Baltimore & Ohio R.R. Co., Baltimore, Md.
Bank of America, San Francisco, Calif.
Barber-Colman Co., Rockford, Ill.
Barber-Greene Co., Aurora, Ill.
Bausch & Lomb Optical Co., Rochester, N. Y.
Bell Telephone Laboratories (3 units)*
Bendix Aviation Corp. (4 units)*
Bethlehem Steel Co., Bethlehem, Pa.
Boeing Airplane Co., Seattle, Wash.
Bowman Dairy Co., Chicago, Ill.
Brown Foreman Distillers Corp., Louisville, Ky.
Boy Scouts of America, New York, N. Y.
Bristol-Myers Products Division, HILLSIDE, N. J.
Burlington Industries, Greensboro, N. C. (2 units)
Burns & McDonnell Eng. Co., Kansas City, Mo.
Burroughs Corp. (4 units)*
Business Men's Assurance Co., Kansas City, Mo.

Cadillac Motor Car Division, Detroit, Mich.
Campbell Soup Co., Chicago, Ill.
Capitol Record Club (2 units)*
Carpenter Steel Co., Reading, Pa.
Caterpillar Tractor Co. (3 units)*
Charmin Paper Mills, Green Bay, Wisc.
Chase Bag Co., New York, N. Y. (2 units)
Chicago Bridge & Iron Co., Chicago, Ill.
Chrysler Corp. (6 units)*
Cities Service Oil Co., Bartlesville, Okla.
Cleveland Diesel GM, Cleveland, Ohio
The Coca Cola Co., Atlanta, Ga. (2 units)
Coca-Cola Export Corp., New York, N. Y. (2 units)
Collins Radio Co., Burbank, Calif.
Colgate Palmolive, Jersey City, N. J.
Columbia Broadcasting System, New York, N. Y.
The Columbus Mutual Life Ins. Co., Columbus, Ohio
Connecticut General Life Ins. Co., Hartford, Conn.
Consolidated Edison Co. of N. Y. (3 units)
Continental Can Co., New York, N. Y.
Continental Oil Co., Ponca City, Okla. (3 units)
Convair, General Dynamics Corp., San Diego (2 units)
Coty Inc., New York, N. Y.
Cummins-Chicago Corp., Chicago, Ill.
The Curtiss Candy Co., Chicago, Ill.
Curtis Wright Electronic Division, East Paterson, N.J.

Dairypak Butler Inc., Cleveland, Ohio
De Jur-Amsco Corp., Long Island City, N. Y.
Delco-Remy (2 units)*
Diamond Match Co., Greenwich, Conn.
Diebold Inc., New York, N. Y.
The Do-all Co., Des Plaines, Ill.
The Reuben H. Donnelley Corp., Washington, D. C.
Douglas Aircraft Co., Inc. (11 units)*
Dot Records Inc., New York, N. Y.
Dow Chemical Company (6 units)*
Dow Corning Corp., Midland, Mich.
Dun & Bradstreet Inc., New York City, N. Y.

E. I. duPont de Nemours & Co. (14 units)*
Eastman Kodak Co., Rochester, N. Y. (9 units)
The Elmco Corp., Salt Lake City, Utah
Electric Auto-Lite Co., Bay City, Mich.
Electric Storage Battery Co., Cleveland, Ohio
Electro-Motive Div., GMC, La Grange, Ill.

Elgin National Watch Co., Elgin, Ill. (2 units)
Eli Lilly & Co., Indianapolis, Ind.
Emerson Radio & Phonograph Corp., Jersey City, N.J.
Employers Mutuals of Wausau, Wausau, Wis.
Encyclopedia Britannica, Chicago, Ill.
The Equitable Life Assurance Society, New York, N.Y.
Esso Research & Engineering Corp. (4 units)*
Evinrude Motors, Milwaukee, Wis.

Farm Journal Inc., Detroit, Mich.
Farmers Mutual Automobile Insurance, Madison, Wis.
Firestone Tire & Rubber Co., Los Angeles, Calif.
Food Machinery & Chemical Corp. (2 units)*
Ford Motor Co. (11 units)*
Friden Inc., San Leandro, Calif.

General Adjustment Bureau, Inc. (3 units)*
General Electric Co. (35 units)*
General Foods Corp., Chicago, Ill.
General Motors Corp. (13 units)*
General Shoe Corp., Nashville, Tenn.
General Foods Corp., New York, N. Y.
Gillette Safety Razor Co., Boston, Mass.
Globe-Union Inc., Milwaukee, Wis.
The B. F. Goodrich Co., Akron, Ohio
Goodyear Aircraft Corp. (2 units)*
Great Atlantic & Pacific Tea Co., Garden City, N.Y.
Grumman Aircraft Eng., Bethpage, N.Y. (2 units)
Gulf Oil Corp., New York, N. Y.
Gulf Oil Corp., Pittsburgh, Pa.

Halliburton Oil Well Cementing Co., Duncan, Okla.
Hamilton Cosco, Inc., Columbus, Ind.
Hamilton Watch Co., Lancaster, Pa.
Hazelton Electronics Corp., Little Neck, N.Y.
Hercules Powder Co. (3 units)*
Homestake Mining Co., Lead, South Dakota
Hughes Aircraft Co. (3 units)*
Humble Oil & Refining Co. (3 units)*

I. B. M. Corp (28 units)*
Ingersoll-Rand Co., Phillipsburg, N. J.
Inland Steel Co., East Chicago, Indiana
International Minerals & Chemical Corp., (2 units)*
International Telephone & Telegraph Corp. (4 units)*

Jones & Laughlin Steel Corp., Pittsburgh, (2 units)
S. C. Johnson & Son, Inc., Racine, Wis.

Kaiser Engineers, Oakland, Calif.
Kellogg Cereal Co., Battle Creek, Mich.
Kennecott Copper Corp., Salt Lake City, Utah
Kraft Foods Co., Glenview, Ill.

La France Industries, Inc., La France, South Carolina
Latham Time Recorder Co., Atlanta, Ga.
Le Tourneau-Westinghouse Co., Peoria, Ill.
Lever Bros., New York, N. Y.
Libbey-Owens Ford Glass Co., Toledo, Ohio
Life Magazine, Chicago, Ill.
Lincoln-Mercury, Detroit, Mich.
Linde Co., Tonawanda, N. Y.
Lion Match Co. Inc., Long Island City, N. Y.
Lion Oil Co. (2 units)*
Lions International, Chicago, Ill.
Lockheed Aircraft Corp. (2 units)*
Litton Industries (2 units)*
The Lufkin Rule Co., Saginaw, Mich.
Lukens Steel Co., Coatesville, Pa. (3 units)

Magnolia Petroleum Co. (2 units)*
Marathon Corp. (3 units)*
Massachusetts Mutual Life Ins. Co., Springfield, Mass.
McCulloch Corp., Los Angeles, Calif.
McDonnell Aircraft, St. Louis, Mo.
McKesson & Robbins, Inc., New York, N. Y.
McGraw-Hill Publishing Co., New York, N. Y.
Mennen Co., Morristown, N. J.
Micro Switch, Freeport, Ill.
Mid-States Gummed Paper, Bedford, Ind.
Miles Laboratories, Inc., Elkhart, Ind.
Miller Brewing Co., Milwaukee, Wis.
Minneapolis Honeywell, Morton Grove, Ill.
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Mobil Oil Co., Dallas, Texas
Monroe Calculating Machine Co., Orange, N. J.
Monsanto Chemical Co., St. Louis, Mo.
Motorola Inc., Chicago, Ill.

National Broadcasting Co., Cleveland, Ohio
National Geographic Society, Washington (2 units)
National Homes Corp., Lafayette, Ind.
National Lock Co., Rockford, Ill.
J. J. Newberry Co., New York, N. Y. (4 units)
New Departure, Bristol, Conn.

North American Aviation Corp. (18 units)*
Northrup Corp., Hawthorne, Calif. (5 units)

The Ohio Oil Co., Findlay, Ohio (3 units)
Olin Mathieson Chemical Corp., Baltimore, Maryland
Oscar Mayer & Co., Madison, Wisconsin
Otis Elevator Co., New York City, N. Y.
Owens-Illinois, Toledo, Ohio

Pacific Mills, New York, N. Y.
Pacific Mutual Life Ins. Co., Los Angeles (2 units)
Parents Magazine, New York, N. Y.
J. C. Penney Co. Inc., New York, N. Y.
Pepsi Cola Co., New York, N. Y. (2 units)
Pet Milk Co., St. Louis, Mo.
Philco Corp., Philadelphia, Pa.
The Pillsbury Co., New Albany, Ind.
Pillsbury Mills, Inc. (2 units)*
Pitney-Bowes, Inc., San Francisco, Calif.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Prudential Insurance Co. of America (2 units)*
Prudential Insurance Co. of America, Newark, N. J.

The Quaker Oats Co., Chicago, Ill.

Radio Corp. of America (6 units)*
Railway Express Agency Inc., New York, N. Y.
Ramo-Woolridge Corp., Canoga Park, Calif.
Ray-O-Vac Co., Madison, Wis.
Raytheon Mfg. Co. (5 units)*
Remington Rand (6 units)*
Republic Steel Corp., Niles, Ohio
Republic Aviation Corp., Farmingdale, N. Y.
Richfield Oil Corp., Los Angeles, Calif. (4 units)
The Rockefeller Foundation, New York, N. Y.
The Rockefeller Institute, New York, N. Y.
Rotary International, Evanston, Ill. (2 units)
Helena Rubinstein, Inc., New York, N. Y.

Saks Fifth Ave., New York, N. Y.
Seagram Distillers Corp., New York, N. Y.
Sears, Roebuck & Co. (5 units)*
Schaeffer Pen Co., Fort Madison, Iowa
Shaw-Barton, Coshocton, Ohio
Shell Development Co., Houston, Texas (2 units)
Shell Oil Co., New Orleans, La.
Shell Oil Co., New York, N. Y.
Schenley Distillers, New York, N. Y.
Simmons Co. (2 units)*
Skelly Oil Co., Kansas City, Mo.
A. O. Smith Corp., Milwaukee, Wisc.
Smith-Corona Marchant, Inc., Dewitt, N. Y.
Socony-Vacuum Oil Co. Inc., New York, N. Y.
Southern Railway Co., Washington, D. C.
Sperry Gyroscope Co., Great Neck, N. Y. (3 units)
The Sperry & Hutchinson Co., Chicago, Ill.
Square D Co., Milwaukee, Wisc. (2 units)
Standard Oil Co., New York, N. Y.
Standard Oil Co., Wood River, Ill.
Stanley Tools, New Britain, Conn.
Starkist Foods, Inc., Terminal Island, Calif.
Stewart-Warner Corp., Chicago, Ill.
Stromberg-Carlson Co., San Diego, Calif.
Sunstrand Aviation, Rockford, Ill.
Sunkist Growers, Inc., Corona, Calif.
Sunray Products, Warren, Penna.
Sunshine Biscuits Inc., Long Island City, N. Y.
Swank Inc., Attleboro, Mass.
Sylvania Electric Products Inc. (4 units)*

Tennessee Coal & Iron, Fairfield, Alabama (2 units)
Texaco Inc., Beacon, N. Y. (2 units)
The Texas Co., Houma, La.
Timken Roller Bearing Co., Canton, Ohio
The Toni Co., Chicago, Ill.
The Travelers Insurance Co., Hartford, Conn.
Triner Scale Co., Chicago, Ill.

Underwood Corp., New York, N. Y.
Union Carbide Nuclear Co., Oak Ridge (2 units)
Union Carbide Chemical, South Charleston, W. Va.
Union Oil Co. of California, Brea, Calif. (5 units)
U. S. Steel Homes, Inc., New Albany, Indiana
U. S. Steel Corp., Pittsburgh, Pa. (2 units)
Upjohn Co., Kalamazoo, Mich.

Hiram Walker & Sons, Inc., Peoria, Ill.
Welch Grape Juice Co. Inc., Westfield, N. Y.
West Bend Aluminum Co., West Bend, Wisc.
Western Electric Company (18 units)*
Westinghouse Electric Corp. (5 units)*
West Virginia Pulp & Paper Co., New York, N. Y.
Whirlpool Seeger Corp. (5 units)*
Willis Motors Inc., Toledo, Ohio
Wyeth Laboratories Inc., Philadelphia, Pa. (2 units)

* At various plants or offices.

*The above is a random sampling from the thousands of VARIGRAPH users;
the omission of a user's name has no other significance.*

THE NON-PHOTOGRAPHIC HEADLINE MACHINE



VARIGRAPH

®

THE VARIGRAPH CO., MADISON 1, WIS.

Varigraph Set Prices

THE STARTER	Office Model VARIGRAPH Matrix 9U (14-72) Similar to Futura Demibold Capillary Pens: Nos. 000; 0; 2	\$149.50 17.00 4.40
	Total Price	\$170.90
THE STUDIO	Italic Model VARIGRAPH Matrix 26UL (7-36) Similar to News Gothic Matrix 9U (14-72) Similar to Futura Demibold Matrix 34U (14-72) Similar to Bodoni Bold Matrix 65U (14-72) Similar to Dom Casual Capillary Pen Set LL5 (Nos. 00; 0; 1; 2; 3)	\$179.50 16.00 17.00 17.00 17.00 6.10
	Total Price	\$252.60
THE COMPLETE VARIGRAPH PRODUCTION OUTFIT	Italic Model VARIGRAPH Composing Table Mats: 85U (14-72) Similar to Copperplate Demibold; 965FU & 965L (14-72) Similar to Franklin Gothic; 28U & 28L (14-72) Similar to Craw Clarendon; 64U & 64L (14-72) Similar to Dom Bold; 26UL (7-36) Similar to News Gothic Production Pen No. 0 Capillary Pens Nos. 00; 2; 5 Cartridge India Ink & Bottle Di-Rect Plate Ink Pen Socket Holder & Layout Pencil Attachment Fill-In Stylus; Fill-In Pen & Pkg. Strathmore Paper	\$179.50 89.50 17.00 39.50 32.00 32.00 16.00 3.65 3.30 2.30 5.25 3.99
	Total List Price	\$423.99
	Package Price, Only	\$379.95

NOTES

- 1—Catalog & Production Handbook and Instruction Manual free with each of the above sets.
- 2—Mats may be exchanged within 60 days from delivery date.
- 3—"U" in matrix number indicates it has caps, numerals and symbols.
- 4—"L" in matrix number indicates it has lower case only.
- 5—"F" in matrix number indicates it can be used for solid or outline lettering.
- 6—Numbers in parenthesis indicates range of type sizes that can be made.
- 7—Composing Table is used for precision straight lettering; making layouts; forms ruling, etc. It is also available in a transparent top with frosted vinyl overlay sheet having imprinted horizontal and vertical scales for color separations and overlays. To order, add \$20.00 net to Production Outfit set.

SOLD BY
GRAPHIC ART SUPPLIERS
1455 E. 49th STREET
BROOKLYN, N. Y. 11234
CH 1-8583

212 CO 6-1330
CH 1-8583

Ship To _____
Address _____ **Date** _____
Attn: _____ **P. O. No.** _____
Special Instructions _____

Terms (Please check one)

☐ C. O. D.☐ Prepaid (Check or money order enclosed)☐ Net 30 days (If not D & B rated, please provide references below)

Trade Reference No.1_____

Address _____

Trade Reference No. 2_____

Address _____

Bank Reference _____

Address _____

Rates for extended payment terms available on request.

[illegible]

Signature and Title of Purchaser's Authorized Agent

SHIPPING: APPROXIMATELY 10 DAYS FROM RECEIPT OF ORDER, F. O. B. MADISON, WIS.

Area Code 608
Phone 256-7679

VARIGRAPH INC.

Madison 1, Wisconsin
53701

Ship to _____

Date _____

Firm _____

(Purchase Order No.) _____

Address _____

City _____ Zone _____ State _____

How ship _____

DO NOT WRITE HERE

QUANTITY	ITEM	EACH	EXTENSION
	VARIGRAPH Headwriter only, less mats, table, etc.	\$ 149.50	
	VARIGRAPH Office Outfit, includes drafting board, T-square, pens, ink, etc., plus mats worth \$ 67.00*. See page 3.	229.95	
	Complete VARIGRAPH Production Outfit, includes new Composing Table, Curve Attachment, Production Pen, full complement of supplies and accessories as described in catalog, plus mats worth \$ 136.50*. See Page 7.	349.95	
	*If desired, mats of <u>equal value</u> may be substituted for those regularly furnished with each outfit above. Below, show mat numbers substituted.		
	1. 5.		
	2. 6.		
	3. 7.		
	4. 8.		
	Italic Model Varigraph	179.50	
	Italic Model Varigraph is included in office or production outfit for an additional	30.00	
	VARIGRAPH Production Pen, #00, 0, 1, 2, 3, 4, 5; underscore size each . .	4.25	
	VARIGRAPH Production Pens, Complete Set, all seven sizes	26.50	
	LUXO Combo, less bracket; state color	27.25	
	MAGNALUME, less bracket	42.25	
	LUXO Fluorescent	27.25	
	Brackets No. 1 or 3, state which	3.50	
	Brackets No. 2 or 4, state which	2.25	
	Circline Fluorescent Tube	3.50	
	Fluorescent Tubes, pair	2.20	

TERMS NET 30 DAYS TO RATED FIRMS
F. O. B. MADISON, WISCONSIN

TOTAL \$ _____

Amount Remitted \$ _____

Balance Due (if any) \$ _____

(for VARIGRAPH Inc.)

Ordered by _____